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THE
FLORIST AND POMOLOGIST,
AND
SUBURBAN GARDENER :

A Pictorial Magazine of Horticulture,
AND
REGISTER OF GARDEN NOVELTIES.

EDITED BY

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NATURE-PRINTED," "INDEX FILICUM," "THE HANDBOOK OF BRITISH FERNS."
"EPITOME OF GARDENING," ETC.

1882.

London :
PUBLISHED FOR THE PROPRIETORS, BY
MESSRS. KENT & CO., 23, PATERNOSTER ROW, E.C.

MDCCCLXXXII.

LIST OF ILLUSTRATIONS.

COLOURED PLATES.				WOODCUTS.			
PLATE	<i>To face page</i>				<i>Page</i>		
564. APPLE BEAUTY OF HANTS	89			AQUILEGIA CHRYSANTHA	5		
574. APPLE SCHOOLMASTER	169			ASPARAGUS PLUMOSUS... ..	101		
566. APPLE SOPS IN WINE	105			BOG-PLANTS IN PANS FOR HOUSES	169		
572. APPLE WARNER'S KING	152			BOILER, HORIZONTAL TUBULAR	30		
562. APPLE WERDER'S GOLDEN REINETTE	73			BRACHYCOME IBERIDIFOLIA	51		
560. AURICULA MABEL	57			BROCCOLI, LEDSHAM'S LATEST OF ALL	13		
575. CAMELLIA DON PEDRO	177			CABBAGE, ELLAM'S DWARF	29		
558. CHERRY (DESSERT) THE BEDFORD PROLIFIC 41				CARNATION DISEASE:—			
„ CHERRY (DESSERT) BIGARREAU GROS				Nematoids causing it	10		
CŒURET	41			Nematoids causing the disease in cucumbers	10		
576. CURRANT BLACK CHAMPION	185			CYPRIPEDIUM SPICERIANUM	179		
561. DAHLIA GRACILIS CUPREA	65			CYPRIPEDIUM VILLOSUM	35		
„ DAHLIA GRACILIS LUTEA	65			DAISY, SWAN	51		
„ DAHLIA GRACILIS SUPERBA	65			EDGE-CLIPPER, GREEN'S NEW GRASS	54		
571. DAHLIA (POMPON) CARL MENDEL	145			ERYTHRÆA DIFFUSA	36		
„ DAHLIA (POMPON) COMTESSE DE STERNBERG 145				ERYTHRONIUM DENS CANIS	163		
„ DAHLIA (POMPON) LADY BLANCHE	145			FLOWER-BOTTLE, MR. BARLOW'S	115		
„ DAHLIA (POMPON) WILHELM NITSCHKE	145			GARDENS, LITTLE BOG	169		
555. DAHLIA (SHOW) PIONEER	17			GRAPES:—			
„ DAHLIA (SHOW) DUCHESS OF WELLINGTON 17				ROYAL ASCOT	7		
573. ERICA COUNTESS OF HOME	161			ROYAL MUSCADINE	7		
„ ERICA DOUGLASHI	161			STRAWBERRY	18		
„ ERICA LADY DUNGLAS	161			TREBBIANO	19		
„ ERICA LADY MARY SCOTT	161			WEST'S ST. PETER'S	43		
„ ERICA MOOREANA	161			HYDROGLOSSUM SCANDENS FULCHERI:—			
569. LILIUM NITIDUM	129			Fertile Frond	60		
553. LILIUM PARRYI	3			Specimen Plant	59		
„ LILIUM POLYPHYLLUM	3			Sterile Pinna	59		
563. NECTARINE THE DRYDEN	81			LEAF-LIFTER, SIMPLEX	38		
567. NERINE EXCELLENS	113			LETTUCE, COOLING'S LEVIATHAN COS	181		
570. PEACH ALEXANDER	137			LINARIA MARITIMA	36		
554. PEACH WATERLOO	9			MARIGOLD, CARTER'S GOLD-STRIPED FRENCH	37		
565. PELARCONIUM BELLE DE JOUR	97			MELON, HIGH CROSS HYBRID	28		
„ PELARCONIUM MIGNONNETTE	97			NICOTIANA AFFINIS	106		
559. PHALENOPSIS STUARTIANA	49			PHLOX DRUMMONDII HORTENSIFLORA ALBA	53		
556. PLUM ARCHDUKE (LATE DIAMOND)	25			PLANT CASE, ROYAL BOTANIC SOCIETY'S (MR.			
„ PLUM REINE CLAUDE DU COMTE HATHEN 25				SOWERBY'S) TRAVELLING	92		
568. PLUM HARRIET	121			POT, TEBBS' UNIVERSAL TRAVELLING	124		
557. WISTARIA SINENSIS FLORE-PLENO	33			RAKE, MARPLE'S IMPROVED GARDEN	92		
				SEAT, THE BRADGATE PARK... ..	93		
				SEAT, GARDEN, MEAD'S PATENT REPLEX	108		
				SEAT AND TABLE, MEAD'S PATENT REPLEX	108		
				STOVE, CLARK'S PATENT SYPHON CONDENSING	30		
				TRELIS, BURBIDGE'S GARDEN	54		
				VIOLET, DOG'S TOOTH... ..	163		
				ZINNIA ELEGANS FLORE-PLENO	69		

INDEX.

- ABIES EICHLERI**, 36.
Abutilon vexillarium variegatum, 58 ;
A. Darwinii tessellatum, 58.
Abutilons, new, 53, 76 ; standard, 58.
Adiantum Bournei, 105 ; **A. dolabri-**
forme, 105 ; **A. Legrandii**, 105 ;
A. Pacottii, 105 ; **A. Victoriae**, 74.
Adiantum fronds, to keep fresh, 144.
Æchmea paniculigera, 74, 155.
Ærides formosum, 105 ; **A. illustre**,
 121 ; **A. Lawrenceanum**, 121.
Æschynanthus, for walls, 179.
Agapanthus, for bedding, 47.
Ageratums, new, 12.
Alexandra Palace, Exhibitions at, 16,
 80, 119.
Allium Ostrowskianum, 160.
Alœ abyssinica Peacockii, 74.
Aloysia citriodora, 46.
Alsophila Rebeccae, 74.
Amaryllis Mrs. Garfield, 159.
Amaryllis, new, 27, 53, 76, 90.
Andromeda japonica, 75.
Androsace villosa, 63.
Angulosa Clowesi, 112.
Anthurium Kalbreyeri, 75 ; **A. Lucien**
Linden, 75 ; **A. Scherzerianum**
Woodbridgei, 75.
Apple, Beauty of Hants (pl. 564), 89 ;
 Kerry Pippin, 48 ; Lane's Prince
 Albert, 28, 162 ; Rambour Papelen,
 38 ; Schoolmaster (pl. 574), 169 ;
 Sops in Wine (pl. 566), 105 ;
 Warner's King (pl. 572), 152 ;
 Weaving, 152 ; Werder's Golden
 Reinette (pl. 562), 73.
Apple, growing for profit, 47.
Apples, new, 156 ; notes on, 96 ;
 kitchen, display of, 187 ; Norfolk
 Beefing, drying of, 47.
Aquatic plants, 168.
Aquilegia chrysantha, 5.
Asparagus, Harwood's Prizetaker
 Giant, 28.
Asparagus plumosus, 100 ; **A. plumosus**
nanus, 52 ; **A. tenuissimus**, 52.
Asters, annual, 72 ; new quilled, 12.
Aster gymnocephalus, 12 ; **A. Novæ**
Angliæ pulchellus, 26.
Astilbe Thunbergii, 89.
Astragalus adsurgens, 26.
Athyrium Filix-femina laciniato-
acrocladon, 105 ; **A. F.-f. magni-**
capitatum, 105 ; **A. F.-f. ramo-**
sissimum fimbriatum, 105 ; **A. F.-f.**
unco-glomeratum, 36 ; **A. F.-f.**
velutinum, 26.
Aubrieta violacea, 90.
Auricula Mabel (pl. 560), 57.
Auriculas, Alpine, 57, 82, 83, 85 ; at
 Manchester, 94 ; choice, 95 ; double,
 136 ; Hibberd's Catalogue of, 95 ;
 notes on, 22.
Auriculas, new, 83, 84, 90.
Azalea, new, 76.
Azalea, Miss Buist, 144 ; **A. rubi-**
flora flore-pleno, 89.
Azaleas, Indian, forcing, 184.

BAKER, Mr. G., presentation to, 47.
Barr & Son, opening of business, 127.
Feen, Dwarf Green Gem, 28.
Begonia goegoensis, 121 ; **B. soco-**
trana, 121 ; **B. Martiana gracilis**, 75.
Begonia discolor Rex, new hybrids
 of, 107.
Begonias, new, 27, 76, 107, 123, 155,
 188.
Belgique Horticole, plants figured in,
 31, 39, 94, 158, 174.
Bertolonia ænea, 26.
Blechnum Spicant Aitkenianum, 36 ;
B. S. obovatum, 106.
Boiler, Thames Bank Iron Co.'s Hori-
 zontal Tubular, 30.

Bomarea conferta, 36 ; **B. frondea**,
 106 ; **B. Shuttleworthii**, 26 ; **B.**
vitellina, 36 ; **B. Williamsiæ**, 180.
Borecole, Potter's Extra Curled, 28.
Botanical Atlas, M'Alpine's, 110.
Botanical Magazine, plants figured
 in, 14, 31, 39, 55, 79, 93, 109, 125,
 141, 157, 173, 182.
Bouvardia, new, 76.
Brachycome iberidifolia, 50.
Briza spicata, 52.
Broccoli, Gilbert's Cabbage, 143 ;
 Ledsham's Latest of All, 13, 28 ;
 Purple Sprouting, 22.
Brown, Matthew, death of, 128.
Browneas at Glasnevin, 112.
Brussels Sprouts, Marshall's Im-
 proved, 28.
Bulbocodium trigynum, 89.
Bulbous plants, leaves of, 87.
Bulbs and Bulb Culture, Fish's,
 noticed, 16.
Bulbs for pot-culture, 180.
Bulletin d'Arboriculture, fruits
 figured in, 15, 31, 39, 94, 110, 126,
 158, 175.

CABBAGES, new, 28, 29.
Calanthe Textori, 121 ; **C. Veitchii**,
 138.
Calceolaria, new, 12.
Calendula officinalis ochroleuca, 26.
Calochortus Benthamii, 26.
Camellia Don Pedro (pl. 575), 177 ;
C. Guiseppina Mercatelli, 62.
Campanula Hendersoni, 187 ; **C. pyra-**
midalis, 104.
Canna Noutoni, 159.
Capsicum, Little Gem, 29, 127.
Carnation, The Grenadin, 23.
Carnations, clove : **Bella**, 63 ; **Virgo**,
 186.
Carnation bloom of 1882, 165.
Carnation disease, 9.
Carnations, new, 27, 76, 77, 91, 107,
 150, 151, 155.
Cattleya gigas albo-striata, 121,
 burfordiensis, 106, grandiflora, 121 ;
C. luteola (Holfordi), 75 ; **C. Men-**
delii Jamesiana, 75 ; **C. Wallisii**,
 75 ; **C. Warnerii**, specimen of, 159 ;
C. Whitei, 140.
Cauliflower, hardy, 126 ; new, 29, 54.
Celeriac, Large Smooth Paris, 29.
Celery, Winchester Red, 29 ; new, 54,
 92 ; storing of, 144.
Charcoal, value of, in potting soils, 95.
Cheilanthes californica, 155.
Cherry Bedford Prolific (pl. 558), 41 ;
Bigarreau Gros Cœur (pl. 558),
 41 ; **Guigne d'Annonay**, 28.
Cherry trees, dwarf Morello, 147.
Chionodoxa Luciliæ alba, 75.
Chrysanthemum, miniature, for
 rooms, 47 ; new, 12, 27, 53, 77, 123 ;
 select, 66.
Chrysanthemum culture, 136.
Cinerarias, new, 53, 91.
Cineraria culture, 5, 34.
Clarke, James, death of, 188.
Clematis patens, 91.
Cœlogyne glandulosa, 52.
Colchicum montanum, 26.
Columnæa Kalbreyerana, 26.
Comparettia falcata, 140 ; **C. macro-**
plectron, 140 ; **C. speciosa**, 140.
Conandron ramondoides, 122.
Coniferæ, Veitch's Manual of, 46.
Corn-bottle, a winter flower, 63.
Coronilla glauca, 85.
Correspondance Botanique, Morren's,
 noticed, 55.
Cotoneaster frigida, 46.
Cratægus Pyracantha Lalandei, 122.
Crinum Makoyanum, 75.

Crossandra infundibuliformis, 155.
Croton aureo-marmoratus, 122 ; **C.**
Bragæanus, 122 ; **C. Bruce Findlay**,
 122 ; **C. Cronstadtii**, 122 ; **C. Day-**
spring, 122 ; **C. Princess of Wal-**
deck, 122 ; **C. rubro-lineatus**, 122 ;
C. Eyrei, 171.
Crump, Mr., presentation to, 80.
Crystal Palace, Exhibitions at, 80,
 117.
Cucumbers, new, 29, 54.
Cupressus Lawsoniana erecta alba,
 171 ; **Silver Queen**, 180.
Currant, Black Champion (pl. 576),
 28, 185.
Currant bushes, renovating, 96 ;
 standard, 128.
Cyclanthus discolor, 75.
Cyclamens, new, 27, 38, 53, 77.
Cyperus esculentus, 176.
Cypripedium albo-purpureum, 75 ; **C.**
Arthurianum, 171 ; **C. calurum**, 75 ;
C. insigne aureum, 75 ; **C. insigne**
punctatum violaceum, 52 ; **C. Mor-**
ganianum, 140 ; **C. nitens**, 140 ;
C. reticulatum, 171 ; **C. Spicer-**
ianum, 179 ; **C. vernixium**, 140.
Cypripedium, notes on, 34.

DAHLIA gracilis, vars. of (pl. 561),
 165.
Dahlias, pompon, vars. of (pl. 571),
 145 ; show, vars. of (pl. 555), 17.
Dahlia imperialis at Kew, 16.
Dahlias, cultivation of, 80.
Dahlias, new, 27, 77, 140, 156.
Dahlia Show, Grand National, 145,
 158.
Daffodil, Peruvian, 134.
Darwin, Charles Robert, death of, 96.
Davallia elegans, 127 ; **D. e. poly-**
dactyla, 52 ; **D. fijiensis plumosa**, 26 ;
D. Griffithiana, 89 ; **D. Lorrainæ**, 26 ;
D. tenuifolia Veitchiana, 122.
Decaisne, Joseph, death of, 48.
Decas Plantarum Novarum, noticed,
 110.
Delphinium azureum album, 52.
Dendrobium Curtisii, 89 ; **D. for-**
mosum giganteum, 89 ; **D. Leech-**
ianum, 52 ; **D. superbum Dearei**,
 75.
Dianthus chinensis, 21.
Dickie, Dr. George, death of, 128.
Dicksonia chrysotricha, 122.
Disbudding, 44.
Dodgson, R. Barton, death of, 128.
Dodwell, E. S., presentation to, 16.
Dracæna Laingii, 122 ; **D. Thomson-**
iana, 122.
Droseras for window bogs, 168.
Dyer, W. T. Thiselton, honour con-
 ferred on, 111.

EDGE-CLIPPER, Green's new Grass, 54.
Elms, weeping, 23.
Erica (pl. 573), Countess of Home,
 161 ; **E. Douglasii**, 161 ; **E. Lady**
Douglas, 161 ; **E. Lady Mary Scott**,
 161 ; **E. Mooreana**, 161 ; **E. hye-**
malis alba, 26 ; **E. Mawcana**, 75.
Erythronium albidum, 163 ; **E.**
americanum, 163 ; **E. dens canis**,
 163 ; **E. grandiflorum**, 163 ; **E.**
Hartwegii, 164 ; **E. propullans**, 164 ;
E. purpurascens, 164.
Erythraea diffusa, 36.
Eschscholtzia californica Rose Cardi-
nal, 12.
Eucalyptus ficifolia, 26.
Euonymus radicans Silver Gem, 180.
Euphorbia fulgens (jacquinæiflora), 48,
 102.
European Ferns, Britten's, noticed,
 109.
Eustoma exaltatum, 12.

- FAMILIAR Garden Flowers, Hulme & Hibberd's, noticed, 30.
 Familiar Wild Flowers, Hulme's, noticed, 55.
 Fancourt, Edwin, death of, 64.
 Farnkrautter für Fels-Partien Salomon's, noticed, 125.
 Faulkner, F., death of, 188.
 Fertilisation, artificial, 47.
 Fig-trees, 104.
 Firs, noble Silver, 176.
 Foxglove, remarkable, at Buxton, 160.
 Flore des Serres, plants figured in, 55.
 Florule du Mont Blanc, Payot's, noticed, 78.
 Flower-bottle, Mr. Barlow's, 115.
 Flower Garden, Paxton's reissue of, noticed, 62.
 Flowers, new, 12, 27, 38, 53, 76, 90, 107, 123, 140, 155, 172, 181.
 Francoa appendiculata, 167, 168; *F. glabrata*, 167; *F. ramosa*, 167, 168; *F. rupestris*, 167; *F. sonchifolia*, 167, 168.
 Frost-resisting plants, 48.
 Frost, Thomas, death of, 188.
 Fruit Crops, state of, 110, 143.
 Fruit, keeping, 100.
 Fruits, new, 28, 38, 91, 124, 156, 173.
 Fruit-trees, economical dressing for, 33; root-pruning of, 127.
 Fuchsia fulgens, 69; *F. rubra*, 12.
 Fuchsias, new, 27, 53, 140.
 GAGE, Transparent, 47.
 Gaillardia picta Lorenziana, 13, 123.
 Galeandra nivalis, 52.
 Garden Appliances, new, 30, 38, 54, 92, 108, 124.
 Garden Gossip, 15, 32, 46, 62, 80, 94, 110, 126, 143, 158, 175.
 Garden, plants figured in, 41, 55, 79, 93, 110, 125, 142, 157, 174.
 Garden produce, transit by railway, 63.
 Garden, Rock, under glass, at Edinburgh, 127.
 Garden, tidiness in the, 120.
 Garden Visitors on Whit Monday, 111.
 Gardens, little bog, 168.
 Gardens, Royal Horticultural, suit for possession of, 62.
 Gardeners' Chronicle, novelties described or figured in, 15, 32, 40, 55, 78, 93, 108, 125, 141, 157, 173, 182.
 Gardeners' Royal Benevolent Institution, 62, 126.
 Gardeners' Year-book for 1882, noticed, 16.
 Gartenflora, plants figured in, 14, 39, 56, 93, 109, 158, 175.
 Garten-Zeitung, plants figured in, 15, 39, 56, 94, 109, 126, 158, 174.
 Gazaniopsis stenophylla, 159.
 Gentiana arvernensis, 75.
 Gladioli, new, 27, 77, 141.
 Globba albo-bracteata, 122; *G. atrosanguinea* (coccinea), 89.
 Gloxinias, new, 107, 123.
 Godetias, new, 123, 141.
 Gooseberries, heaviest, 176; for desert, 160; standard, 128.
 Grape, Alphonse Lavallée, 91; Golden Pocklington, 38; Gros Maroc, 119; White Tokay, 51, 81.
 Grapes at Manchester, 1881, 3; descriptive list of, 6, 18, 42; from the old wood, 186; fruiting in pots, 164; selections of, for particular purposes, 67.
 Grevillea annulifera, 140.
 Grindelia grandiflora, 12.
 Gymnogramma Laucheana grandiceps, 90.
 Gynura aurantiaca, 52.
 HABERLEA rhodopensis, 171.
 Hardy Fruit Book, Fish's, vol. ii., noticed, 110.
 Heath's, new Bothwell, 161.
 Heliotrope, Oxonian, 63; White Lady, 94.
 Hepatica, double white, 88.
 Hesperaloe yuccifolia, 140.
 Hesperocallis undulata, 26.
 Hollies injured by mice, 74.
 Horticultural Buildings, Fawkes', noticed, 16.
 Horticultural Directory for 1882, noticed, 16.
 Horticulturists, International meeting of, 1883, 176.
 Hot-water Heating, Fawkes', noticed, 125.
 Hurst, William, death of, 48.
 Hyacinths, new, 77.
 Hydrangeas, dwarfing, 112; *H. japonica tricolor*, 106.
 Hydroglossum scandens Fulcheri, 59.
 Hypericum oblongifolium, 187.
 IANTHE bugulifolia, 26.
 Iberis gibraltaria hybrida, 90.
 Iconography of Indian Azaleas, varieties figured in, 14, 40, 56, 79, 142, 182.
 Illustration Horticole, plants figured in, 14, 31, 39, 56, 94, 110, 126, 157, 174.
 Impatiens Sultani, 106, 155.
 Indian Corn for green peas, 85.
 Iris Van Houttei, 90.
 Ismene Amancaes, 134.
 Ivy, Red-berried, 176.
 Ixora Westii, 52.
 JOURNAL des Roses, varieties figured in, 41, 56, 94, 109, 126, 158, 175.
 KERHOVE, M. le Comte de Denterghem, death of, 64.
 Kämpferia Gilbertii, 52.
 LABURNUM Alschingeri, 128.
 Lælia anceps Veitchii, 26.
 Lantana, new, 123.
 Lasia stipitata, 123.
 Lastrea dilatata folioso - cristata Brownii, 106; *L. montana coronans*, 140.
 Lathyrus azureus, 22; *L. odoratus*, Bronze Prince, 141.
 Laurel, Alexandrian, 63.
 Lavatera arborea variegata, 106, 171.
 Leaf-lifter, Simplex, 38.
 Lee, John, presentation to, 80.
 Leea amabilis, 75.
 Leek, Lyon, 29.
 Lettuce (cabbage), Golden Ball, 29; (Cos) Ocoling's Leviathan, 181.
 Llewelyn, J. Dillwyn, death of, 160.
 Lilac, forcing the, 57.
 Lily, blue water, 144; Guernsey, 4.
 Liliun auratum virginale, 171; *L. elegans robustum*, 106; *L. eximium Harrisii*, 180; *L. nitidum* (pl. 569), 129; *L. Parryi* (pl. 553), 3; *L. polyphyllum* (pl. 553), 3; *L. speciosum Melpomene*, 155; *L. Scott Wilson*, 123; *L. Thunbergianum cruentum*, 123.
 Lime as a slug destroyer, 111.
 Linaria Cymbalaria maxima, 111; *L. maritima*, 36; *L. maroccana hybrida*, 26; *L. pallida*, 111.
 Lobelia, new, 91, 107, 173.
 Loranthus europæus, 32.
 Lucas, Dr. Charles E., death of, 144.
 Lycaste Deppei punctatissima, 122.
 MANSION House Rose Show, 117.
 Marigold, new gold striped, 38.
 Mascarenhasia Curnowiana, 37.
 Masdevallia Harryana imperialis, 90; *M. versicolor* (striata), 106; *M. ludi-bunda*, 37; *M. Veitchii grandiflora*, 106.
 Masdevallias, how to grow, 8.
 McKay, Alexander, death of, 64.
 McMillan, Henry, death of, 176.
 Medinilla, magnifica, 81.
 Meehan, Edward, death of, 188.
 Mellor, Thomas, death of, 96.
 Melons, new, 28, 124, 173.
 Mignonette, Golden Queen, 27.
 Miller, J., presentation to, 111.
 Mimulus cupreus Mellori, 111; *M. Fremontii*, 12.
 Mirabilis multiflora, 96.
 Moore, Thomas, presentation to, 111.
 Mormodes, pardina unicolor, 171.
 Moth, winter, tar as a remedy for, 175.
 Muir, William, presentation to, 80.
 Mushroom Beds, renovation of, 159.
 Myrtle, Jenny Reichenbach, 47.
 NAMA Parryi, 12.
 Narcissi, Nelson's Seedling, 96.
 Narcissus Gertrude Jekyll, 96; *N. obvallaris Grand Trunk*, 144.
 Nectarine, Dryden (pl. 563), 81; Humboldt, 147.
 Nepenthes Mastersiana, 106; *N. Morganiae*, 76; *N. nigro-purpurea*, 171.
 Nelson, Rev. John G., death of, 80.
 Nerine Cami, 180; *N. excellens* (pl. 567), 52, 113.
 Nerines, treatment of, 95.
 Neriums, new, 141.
 Nertera depressa, 143.
 Newington, Dr. S., death of, 128.
 Nicotiana affinis, 106.
 Norman, George Ward, death of, 160.
 Novelties, register of, 11, 26, 36, 52, 74, 89, 105, 121, 140, 155, 171, 180.
 Nut, Zulu, 176.
 Nymphaea Daubenyan, 144.
 ODONTOGLOSSUM crispum (Alexander) Dormannianum, 181, Duchess, 181, giganteum, 107, Stevensii, 52, virginale, 181, Wilsoni, 181; *O. Leeanum*, 76; *O. membranaceum roseum*, 76; *O. Pescatorei Veitchii*, 76; *O. vexillarium Cobbianum*, 107, rubellum, 26.
 Oenothera albicaulis, 52.
 Oliver, Anthony, death of, 112.
 Omphalodes Kramerii, 144.
 Oncidium fuscatum album, 53; *O. lamelligerum*, 107; *O. teretifolium*, 90.
 Onion, Cranston's Excelsior, 29.
 Onions, new, 13.
 Orchid Album, Williams', plants figured in, 30, 41, 56, 79, 142, 182.
 Orchid notes, 24.
 Orchids, exhibitions of, Mr. Bull's, 94; Mr. Williams', 94.
 Orchids, hardness of Tropical, 64; potting material for, 47; shading for, 70.
 Ornithogalum thyrsoides, 172.
 Osborn, Robert A., death of, 112.
 Osborn's Nurseries, sale of, 176.
 Osmunda japonica corymbifera, 122; *O. javanica*, 122.
 PÆONY, Tree, 139.
 Panax elegans, 26.
 Pansies, new, 38, 91, 107, 156; prize, 138; show, 58; striped fancy, 87; new double, 123.
 Paphinia rugosa, 122.
 Parsley, McBride's Triple Curled, 29.
 Pea, new sweet, 141.
 Peas, new, 13, 29, 181.
 Peach, Alexander (pl. 570), 137; Sea Eagle, 152; Waterloo (pl. 554), 9.
 Peaches, new, 124; for North, 103.

- Pear, Dijzeling, 156; Jalousie de Fontenay, 45; Joséphine de Moubray, 92; Louise Bonne de Printemps, 17; Marie Louise d'Uccle, 170; Welton Beurre, 28.
- Pearson, John, death of, 160.
- Pelargonium, Belle de Jour (pl. 565), 97; Mignonette (pl. 565), 97.
- Pelargoniums, new Zonal, 53, 77, 107, 114.
- Pelargoniums, new, 123, 124, 141.
- Pelargoniums, Cannell's Prize Zonals, 144.
- Pentstemon Cobæa purpurea, 26.
- Pentstemons, new, 78, 173.
- Pernettya mucronata, new varieties of, 172.
- Perry, William, death of, 128.
- Petunia, new double, 141.
- Phacelia campanularia, 122.
- Phalænopsis Esmeralda, 172; Ph. Schilleriana alba, 112; Ph. speciosa, 159; Ph. Stuartiana (pl. 559), 26, 49; Ph. S. nobilis, 26; Ph. S. punctatissima, 26; Ph. violacea Schröderi, 140.
- Philadelphus microphyllus, 187.
- Phlox Drummondii hortensiaeflora alba, 53.
- Phloxes, hardy, 183.
- Picotees, new, 27, 151, 152, 156.
- Picotees, scarlet-edged, 61; select, 61, 62.
- Picotee bloom of 1882, 177.
- Pinguicula caudata (Bakeriana), 90.
- Pinguiculas for window bogs, 168.
- Pinks, Alpine, 95; border, 128; new, 53; show of, 186.
- Pittosporum undulatum, 66.
- Plants, New Commercial, and Drugs, noticed, 175.
- Plant case, Royal Botanic Society's Travelling, 92.
- Pleopeltis fossa, 123, 181.
- Plum, Archduke (pl. 556), 25; Harriet (pl. 568), 121; Reine Claude du Comte Hathem (pl. 556), 25.
- Plum leaves, milky sickness of, 119.
- Podolasia stipitata, 123.
- Poinsettia pulcherrima, 24.
- Polyanthus, notes on, 22.
- Polyanthuses, new, 13, 27, 38, 84, 85, 91.
- Polypodium vulgare cornubiense Fowleri, 37; P. v. variabile cristatum, 37.
- Polystichum angulare perserratum, 37.
- Populus alba Bolleana, 188.
- Pot, Tebbs' Universal Travelling, 124.
- Potatos, Hibberd's Descriptive Catalogue of, 62.
- Potatos, new, 14, 29, 42, 54, 157, 187.
- Potatos, trial, at Chiswick, 158; for exhibition, 9.
- Potato crop, state of, 143.
- Potato disease, to ward off, 186.
- Potato Exhibition at Crystal Palace, 62, 158.
- Primrose, Cannell's Blue Chinese, 47.
- Primula acaulis, new, 78; P. elatior, new, 38; P. latifolia, 76; P. obconica (poculiformis), 90, 188; P. Sieboldii, new, 54; P. sinensis, new, 27, 38, 47.
- Pteris serrulata cristata-lacerata, 90.
- Publications, new, noticed, 14, 30, 39, 55, 78, 93, 108, 125, 141, 157, 173.
- Pyrethrum aureum selaginoides, 12.
- QUESNELIA Van Houttei, 37.
- RAKE, Marple's Improved Garden, 92.
- Ranunculus anemonoides, 155; R. Heldreichianus, 76.
- Ranunculus, Persian and Turban, 170.
- Raspberry and Strawberry, Fish's, the, noticed, 78.
- Reseda odorata, new, 124.
- Retinosporas, 187.
- Revue de l'Horticulture Belge et Etrangère, subjects figured in, 15, 31, 56, 94, 110, 126, 158, 175.
- Revue Horticole, subjects figured in, 15, 31, 56, 94, 110, 126, 158, 175.
- Rhododendrons, new greenhouse, 78.
- Rhododendron, Alice Mangles, 91; R. Fortunei, 90; R. Forsterianum, 76, 96; R. Sesterianum, 64.
- Rhododendron (jasmin.) balsaminiflorum, 107; R. balsaminiflorum album, 123; R. b. aureum, 123; Duchess of Connaught, 53; R. Excelsior, 53; R. Monarch, 53.
- Rhododendron (hyb. javan.), Sir Beauchamp Seymour, 172; Sir Garnet Wolseley, 172; Queen Victoria, 38.
- Rhododendron avenue at Tynninghame, 47.
- Rhubarb, new early, 182.
- Root-pruning of fruit-trees, 127.
- Rosanowia ornata, 53.
- Rose, Maréchal Niel, 80; Gigantesque, 159; W. A. Richardson, 126.
- Rose, The, Ellwanger's, noticed, 78.
- Rose, green, 143.
- Rose, Manetti, origin of, 95.
- Roses, new, 38, 54, 79, 91, 108, 124, 156, 173.
- Roses, propagate and plant, 164; more about useful, 185.
- Roses, striped-flowered, 21.
- Roses, tea, in pots, 49.
- Roses, wiring to root, &c., 88.
- Roses, yellow, 144.
- Rose types, 86, 134, 170.
- Rowan tree, 46.
- SALVIA ianthina Hoveyi, 181.
- Sanderson, Henry, death of, 16.
- Sarracenia porphyro-neura, 107.
- Saxifraga sancta, 76.
- Scabiosa atropurpurea flore-pleno, 26.
- Scabious, double dwarf, for winter flowering, 20.
- Scolopendrium vulgare crispum multifidum, 140.
- Seakale, forcing, 159.
- Seat, Bradgate Park, 92.
- Seat and Table, Mead's Patent Replex Garden, 108.
- Seeds and Seedlings, 45.
- Seed papers, Messrs. Coventry's, 63.
- Selaginella grandis (platyphylla), 123.
- Selection, influence on precocity, 95.
- Shading, Imperial Horticultural, 93.
- Shears, Brockelbank's Gardeners' Edging, 54.
- Sherratt, John, death of, 128.
- Sidalcea candida, 12.
- Sim, Robert, death of, 176.
- Skimmia oblata, fruiting of, 160.
- Smith, George, death of, 160.
- SOCIETIES:— National Auricula (S.), 15, 32, 82, 186.
- National Auricula (N.), 32, 64, 84.
- National Carnation and Picotee (S.), 15, 32, 130, 150, 186.
- National Carnation and Picotee (suppl. show), 111, 129, 131.
- National Carnation and Picotee (N.), 32, 126, 132, 150.
- National Rose, 15, 16, 32, 118.
- Pelargonium, 15, 32, 95, 113, 186.
- Potato, International, 62, 158, 172.
- Royal Botanic, 15, 95.
- Royal Botanical and Horticultural of Manchester, 62.
- Royal Caledonian Horticultural, 32, 153, 158, 186.
- Royal Horticultural, 15, 32, 46, 62.
- SOCIETIES:— Royal National Tulip, 32, 98.
- Scottish Pansy, 138.
- Wakefield Amateur Tulip, 99.
- Soils, value of charcoal in potting, 95.
- Soja, Yellow Etampes, 29.
- Spergula pilifera aurea, 107.
- Stapelia pulchella, 140.
- Statice floribunda, 107.
- Stove, Clark's Patent Syphon, 30.
- Strawberries, new, 124, 156, 157.
- Sulphur Fumigation, 51.
- Sunflower, new, 27.
- Sweet William, new, 27; further improvement in, 127.
- Tacsonia Parritæ, 38.
- Tecophilæa cyanocrocus, 48.
- Thwaites, George H. K., death of, 176.
- Tigridia grandiflora alba, 172.
- Tillandsia Furstenbergii, 107.
- Timber, growth of, in Australia, 32.
- Tomato, Queen of Tomatos, 30; Trentham Early Fillbasket, 126.
- Tomatos, new, 14.
- Tomatos, training, 127.
- Tradescantia multicolor for edgings, 112; T. zebrina for edgings, 112.
- Trees, effect of confinement or of poor soil on the roots of, 73.
- Trellis, Burbidge's new garden, 54.
- Trichopilia Backhousiana, 107.
- Trichostema Parishii, 12.
- Tropæolums, new, 13, 28, 141.
- Tropæolum speciosum at Colwyn, 188.
- Tulipa Didieri, 140.
- Tulips, new early single, 78.
- Turnip, Early Marble, 30; Early Munich, 64.
- VANDA Hookeriana, 155; V. Parishii Marriottiana, 181.
- Van Houtte Memorial Prizes, 186.
- Vegetables, new, 13, 28, 54, 92, 157.
- Vegetable Culture for Amateurs, May's, noticed, 110.
- Veitch (Arthur) Memorial Fund, 46.
- Verbenas, new, 13, 78.
- Veronica Hulseana, 107.
- Viburnum plicatum, 160.
- Vick, James, death of, 112.
- Vilmorin, M. Henri, Chevalier of the Legion of Honour, 144.
- Vines, Feeding, 63; pot, 148, 165.
- Vines and Vine-Culture: Descriptions of Varieties, 6, 13, 42; Selections of Varieties, 67; Pot-culture, 148; Fruiting in pots, 164.
- Vine-disease in New South Wales, 47.
- Violas, new, 28, 91, 108.
- Violet, Lee's Princess of Prussia, 13.
- WALLFLOWER, new, 28.
- Wallflowers, use of, in winter, 143.
- Walnut and other Nuts, treatise on, noticed, 16.
- Wasps, how to destroy, 175.
- Weeds on Gravel Walks, how to destroy, 115.
- Weigelas, new, 78.
- Wemyss, George, death of, 112.
- Wilson, James N., death of, 112.
- Wistaria sinensis flore-pleno (pl. 557), 33.
- Wistaria, production of seed in, 143.
- Woodhead, Thomas, death of, 96.
- Woodsia scopulina, 181.
- Worm-casts, value of, 64.
- YOUNG, George, death of, 176.
- ZAMIA montana, 76.
- Zephyranthes citrina, 76; Z. macrosiphon, 76.
- Zinnias, double, 69.
- Zygopetalum Clayii, 90; Z. expansum, 107.



Pr 12. .

prize: Mr. Hudson (H. J. Atkinson, Esq., Gunnersbury), whose fruit was exceedingly good. 3rd prize: G. Middleton, Esq., Rainford Hall, St. Helen's, also very good indeed.

Class 10: 2 BUNCHES, MUSCAT HAMBURGH.—This brought five competitors. The 1st prize was won by Mr. Boyd, with an exceptionally good sample. 2nd prize: Mr. Wallis (Sir H. M. Thompson, Bart., Kirby Hall, York). 3rd prize: Mr. G. T. Miles (Lord Carington, Wycombe Abbey).

Class 11: 2 BUNCHES, MADRESFIELD COURT.—There were eleven lots shown. The 1st prize sample was from Mr. J. H. Goodacre (Earl of Harrington, Elvaston Castle), and was fine in bunch and berry, and jet black. 2nd prize: Mr. J. Roberts (Baroness L. de Rothschild, Gunnersbury), a capital exhibit. 3rd prize: Mr. Barker (Sir H. Allsopp, Bart., Hindlip Hall), a very excellent sample.

Class 12: 2 BUNCHES, BLACK ALICANTE.—The finest of six lots, and which won the 1st place, was staged by Mr. Elphinstone, of Shipley Hall. 2nd prize: Mr. D. Forbes (J. Harris, Esq., Derwent Lodge, Cockermouth). 3rd prize: Mr. R. Elphinstone (John Heywood, Esq., Strefford).

Class 13: 2 BUNCHES, GROS COLMAN.—There were four samples shown, and all good ones; Mr. W. Elphinstone, of Shipley Hall, Mr. D. Forbes, of Derwent Lodge, and Mr. McIndoe, of Hutton Hall, took the awards.

Class 14: 2 BUNCHES, LADY DOWNE'S SEEDLING.—Seven very good lots were shown. The 1st prize was won by Mr. Bannister (H. St. Vincent Ames, Esq., Cole House, Westbury-on-Trym). 2nd prize: Mr. W. Elphinstone. 3rd prize: Mr. Hunter.

Class 15: 2 BUNCHES, DUKE OF BUCCLEUCH.—The 1st prize went to Mr. McIndoe, of Hutton Hall. 2nd prize: Mr. J. Morton (James Fildes, Esq., Chorlton-cum-Hardy). 3rd prize: Mr. J. Farquharson, Acton, Wrexham. All were good samples, the bunches being of a medium size, the berries large, and very clean.

Class 16: 2 BUNCHES, GOLDEN CHAMPION.—This class was well contested by four competitors. The 1st prize was won by Mr. McIndoe. 2nd prize: Mr. J. Roberts. 3rd prize: Mr. J. Morton.

Class 17: HEAVIEST BUNCH OF BLACK GRAPES.—The first prize was taken by Mr. Roberts (Countess of Charleville, Tullamore), with a bunch of Gros Guillaume, weighing 20 lb. 2nd prize: Mr. Finigan (W. Burnyeat, Esq., Huyton). 3rd prize: Mr. Goodacre; weights not stated.

Class 18: HEAVIEST BUNCH OF WHITE GRAPES.—Mr. Roberts was again 1st, with the largest bunch, a sample of Trebbiano, well shouldered and very compact, weighing 20 lb. 3 oz. The same exhibitor also staged two other bunches of the same variety, which together weighed 28 lb.

Class 19: THE BEST SEEDLING GRAPE, NOT IN COMMERCE.—For this prize there were six competitors, and the prize was awarded to Mr. Ollerhead (Sir H. Peek, Bart., M.P., Wimbledon), for *Ollerhead's White*, which was stated to be a seedling between Muscat of Alexandria and Foster's Seedling, and is uncommonly like the latter, but handsome in bunch, with medium-sized oval berries, and possessing a very agreeable flavour. Mr. Hunter showed a seedling black Grape raised in 1880, with the berries nearly round and very thick-skinned, which to be of any value must prove itself a very late keeper, and to possess a better flavour than that of Lady Downe's. Mr. Allan, of Gunton, and Mr. Horsefield, of Heytesbury, both exhibited a Grape called the *Chatsworth Seedling*, a pleasantly-flavoured black Grape, which is believed to be the same as that for which the late Mr. J. R. Pearson, of Chilwell, received a First-class Certificate from the R.H.S. Fruit Com-

mittee, but which he renounced in the following year, as the Grape did not keep to his satisfaction, and he did not believe it to be worth the award.

Grapes of very high quality were also shown in competition for the munificent prizes given by the General Horticultural Company (John Wills), Limited; and for the medals and money awards contributed by the Veitch Memorial Trustees. The former should have brought out a more spirited competition, though it is doubtful if any better samples could have been produced than those which won the premier award. The Veitch Memorial Medals and prizes of £5 were devoted to classes for Black and White Grapes, three bunches to constitute the dish of each.

Class 219: WILLS' PRIZES: 6 BUNCHES OF WHITE AND 6 BUNCHES OF BLACK GRAPES.—The 1st prize (30 gs.) was won by Mr. Hunter, of Lambton. The competitors had to show 6 bunches each of white and of black Grapes, in two or four varieties; and Mr. Hunter elected to display the latter number, his sorts being Alicante and Black Hamburgh, Muscat of Alexandria and Trebbiano. 2nd prize (20 gs.), Mr. Loudon (T. Barnes, Esq., Chirk).

Class 236: VEITCH PRIZES: 3 BUNCHES BLACK GRAPES.—For these there was a very close competition between Mr. Roberts, of Gunnersbury, who had a remarkably highly finished sample of Madresfield Court; and Mr. Boyd, of Falkirk, who put up a superb dish of Muscat Hamburgs, the finest sample of this Grape, difficult to grow, that we ever remember to have seen. The *pros* and *cons* of each were thoroughly discussed before the award was made, and undoubtedly fine as were the Madresfields, there was no getting away from the others, to which the award was eventually made.

Class 237: VEITCH PRIZES: 3 BUNCHES WHITE GRAPES.—The first prize was nobly won by Mr. Rafil (Lord Tredegar, Tredegar Park, Monmouth), who had very fine Muscat of Alexandria, consisting of good-sized, compact bunches of well-swelled and well-ripened berries.—M.

THE GUERNSEY LILY.

THE Guernsey Lily, *Nerine sarniensis*, is a native of Japan, and was imported into England about the year 1659.

It belongs to the natural order *Amaryllidaceæ*, and was originally included in the genus *Amaryllis*, from which it was removed to that of *Nerine* by Dean Herbert. It is now quite naturalised in Guernsey, where it is reputed to owe its introduction to the shipwreck of a vessel returning from Japan. The bulbs are annually imported from Guernsey to this country in very large numbers.

The flowers of *N. sarniensis* are of a brilliant red colour, and are produced in large bunches, on small footstalks, about the month of September. The bulbs should be potted in sandy loam and a small quantity of good rotten dung, as soon as they arrive, which is generally about the beginning of August. When the flowers begin to open, they should be re-

moved under shelter, with plenty of fresh air, for if kept too close, the flowers will become pale, and the period of flowering will be shortened. They will, if properly managed, continue in beauty for a whole month.

After the flowers decay, they should be placed in an airy part of the greenhouse, where the foliage will continue growing all the winter. When the foliage disappears, they should be allowed to go dry; and at the end of June, or beginning of July, they may be repotted, using the same kind of compost as before. These bulbs will, however, flower without much deterioration for four or five successive years without repotting. If planted out, a very warm well-drained border should be chosen for them, and properly prepared with the same kind of compost as that recommended for pot-culture.—GEORGE EYLES, *Lesham Villa, Kew.*



AQUILEGIA CHRYSANTHA.

IT is impossible to speak too highly in praise of this beautiful species, which is a native of the Rocky Mountains of North America, and remarkable for its elegance of form, and the free, graceful habit of the plants, which have much divided, handsome bright-green foliage. *Aquilegia chrysantha* is a strong-growing perennial, very hardy, and in good soil attains to a height of two feet or more, sending up spikes which branch out freely and bear numerous beautiful flowers; these are of a soft canary-yellow, and have long spurs, which give them a very light ornamental appearance.

Besides the species above referred to, there are now numerous charming hybrids that have been raised by crossing it with *A. carulea* and others, which bear flowers of various colours.

A. carulea, as its name implies, has blue flowers, or rather the sepals are of that colour, and the corolla or petals white, the contrast between the two being very effective and telling. Unfortunately neither the constitution nor habit of this species are strong, but by sowing frequently and treating it as a biennial, good plants may always be kept. The best time to sow the seeds of the *Aquilegias* is in early spring, and the best place for them is under a hand-light in rich light soil on a warm border, where the plants should remain till the following year; and they should then be removed to the borders, or to any positions in which it is desired they should produce their flowers. In the climate of London, where they do not thrive particularly well, we find it best to keep them in pots in a cold frame. In this way they make very elegant pot-plants.—T. MOORE.

CINERARIA CULTURE.

I.—FROM OFFSHOOTS OR SUCKERS.

THE double-flowered varieties should be propagated by means of offsets or suckers, because of the large proportion amongst seedlings which produce flowers of inferior character. When exhibition specimens, either single or double, are required, the stock should be raised from offsets of first-class varieties, as a more uniform head of bloom is thus obtained, and there is no risk of time or skill being wasted upon plants that have flowers either inferior in quality, or wanting in distinctness of colour.

In raising stock from offsets, the plants selected for propagation should have flowers that are remarkable for large size, excellent shape, and effective colouring. The selection must consequently be made when the plants are in bloom. After the removal of the fading flowers, place the plants in a frame occupying a shady position; and until the offsets begin to grow freely maintain the soil in a moderately moist state, increasing the water supply according to their requirements. Until the end of May free ventilation will be necessary, and from that period until the offsets are large enough to be potted, the plants must be fully

exposed, either by the withdrawal of the lights or their removal to a shady position out of doors, as the night dews are of great assistance in promoting a vigorous growth. It is the practice of some cultivators to plant *Cinerarias* required for stock in a shady border, and lift them when the offsets are of a suitable size for potting; but my experience is, that it is very much better to keep them in pots, the offsets in this case being more compact in growth and in all respects preferable.

In a general way, the offsets will be large enough for taking off by the end of July or the beginning of August. To detach them readily, and without injury to the roots, turn the old stools out of the pots, shake away all the old soil, and, holding the base securely between the finger and thumb, slip them off with whatever roots may be attached to them. When their separation has been effected, insert them round the sides of 5-in. pots filled with a compost consisting of mellow loam, leaf-mould, and sharp silver-sand, and shut them up in a frame on the north side of a wall or tall hedge, keeping them close and shaded until they have recovered from the check, and are commencing to grow freely, when a little ventilation and more light will be necessary. The soil must be kept moderately moist, and a rather humid atmosphere maintained until the offsets are nicely furnished with roots. The next step will be to pot them singly in small sixties, or to put them into large sixties, three in each, the latter course being the best when large exhibition specimens are required. After they become well established in the small pots, two subsequent shifts will be necessary, the first into 5-in. or 6-in., and the second into 8-in. or 9-in. pots.

The most suitable compost for both offsets and seedlings consists of mellow turfy loam five parts, old hotbed manure one part, leaf-mould one part, and nearly one part of sharp silver-sand. The loam should, as a matter of course, be used in a rather lumpy state, and at each shift the soil must be pressed moderately firm.

The best place for the whole stock until the end of September will be a cold frame, and from that time until they are coming into bloom a spacious pit facing the south will

afford the most suitable quarters, as in this they can be kept near the glass, and enjoy a temperature the most conducive to their welfare. The structure in which *Cinerarias* are wintered must be heated, but they ought not to be subjected to more artificial warmth than is necessary for keeping out frost and drying up superfluous moisture. In watering *Cinerarias*, it is necessary to bear in mind that the supplies should be liberal, without being excessive; and that after the end of December, weak liquid manure may be advantageously employed at first once a week, or twice as the season advances. No stopping will be necessary in the case of the seedlings, but the flower-stems of plants raised from offsets may be stopped at the third or fourth joint immediately they are so far developed. Large specimens ought also to have the leaves pegged out a little, to ensure an equal distribution of foliage, and the flower-stems must, as they rise, be tied out in such a way that the flowers will form even, spherical heads.

Mildew, which is one of the chief enemies of the *Cineraria*, can be kept under by dusting the foliage with flowers of sulphur as soon as the plants are attacked; while moderate fumigations with tobacco-paper will suffice to make an end of green-fly, which is another of its greatest foes.—J. JAMES, *Redlees, Isleworth*.

VINES AND VINE CULTURE.

CHAP. XVIII.—THE VARIETIES OF GRAPES.

(Continued.)

THE descriptions of the varieties of Grapes included in our Synoptical Table are here continued from our last volume (p. 181):—

RED HAMBURGH.—A synonym of Black Hamburg: which see.

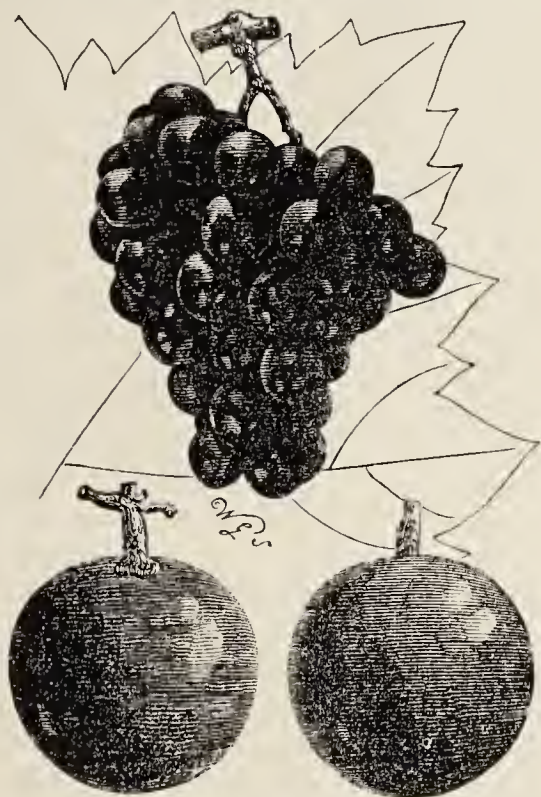
RED RHENISH.—A synonym of Lombardy: which see.

ROYAL ASCOT (79).—An oval black Vinous Grape.

Vine.—Growth robust and vigorous, with fine free constitution, very fruitful, frequently producing three or four bunches on one shoot, and also occasionally producing other bunches on the young laterals, which circumstance induced the raiser to designate it a "perpetual" bearer. *Leaves* large, roundish, deeply toothed, dying off reddish.

Fruit.—*Bunches* small, rarely exceeding $\frac{1}{2}$ lb. in weight, short, broad, frequently forked, or with one

large shoulder; very closely set, requiring early thinning. *Berries* large, roundish-ovate, with a thick stalk; skin very thick, purplish-black, with a thick, heavy bloom; they commence to colour very early, and are black a long time before being ripe. *Flesh* very firm, with a strong, piquant, plum-like flavour, becoming rich when thoroughly ripe.



ROYAL ASCOT.

History, &c.—This was raised by the late Mr. John Standish, of Ascot, from a cross between Bowood Muscat and Muscat Troveren, and received a First-class Certificate from the Royal Horticultural Society.

Cultural Notes, &c.—Succeeds well and fruits freely in any ordinary vinery, but requires a long time to ripen the fruit thoroughly. Is extremely well suited for pot-culture.

Season.—General crop; mid-season.

Merits.—Second-rate in quality, handsome in berry, but too small in the bunch.

ROYAL MUSCADINE (32).—A round, white Sweetwater Grape. *Synonyms*: Amber Muscadine, White Chasselas, Chasselas de Fontainebleau, Chasselas Hâtif de Tenerife, Golden Bordeaux, Queen Victoria, White Muscadine, &c.

Vine.—Growth very free and vigorous, with a fine constitution. The young shoots slender, but well ripened; the bark dark, reddish-brown; extremely fruitful. *Leaves* small, roundish, but slightly lobed, dying off early, of a pale yellow colour.

Fruit.—*Bunches* medium-sized or small, long, tapering, broadly shouldered, and somewhat loose; freely set. *Berries* small, round, pale greenish-yellow, becoming whitish when fully ripe, or if exposed to bright sun, the one side becoming of a bright cinnamon-russet, in which condition they are very much richer and sweeter. *Flesh* firm, yet tender, juicy, sweet, and extremely agreeable to the

palate; when kept late, until they begin to shrivel, they are extremely rich.

History, &c.—This is a well-known grape, which has been long grown in this country, frequently as the White Sweetwater; indeed, being the better grape of the two, it is fast superseding that variety. It is the same as the Chasselas de Fontainebleau of the French, or the White Chasselas so common in the Paris restaurants.

Cultural Notes, &c.—The best of all grapes for cultivation in the open air against walls in this country. In the southern counties, in favourable seasons, it ripens freely and well. Good for pot-culture, and for growing in an ordinary vinery, where it ripens about a fortnight before the Black Hamburgh.

Season.—Early.

Merits.—First-class in flavour, and also as an outdoor grape, and for earliness; it will also keep long in good condition, after being ripe.



ROYAL MUSCADINE.

ROYAL VINEYARD (89).—An oval white Vinous Grape.

Vine.—Growth very strong and robust; moderately fruitful. *Leaves* large, dying off yellow.

Fruit.—*Bunches* large, long, tapering, but irregular; loosely shouldered; generally sets badly. *Berries* large, roundish obovate. *Skin* thin, membranous, clear and transparent, adhering somewhat to the flesh. *Flesh* firm, dull greenish, moderately juicy, with an agreeable, sweetish flavour; when highly ripened, partaking slightly of the Muscat.

History, &c.—Introduced by Messrs. Parker and Williams about 1860, and received a First-class Certificate from the Royal Horticultural Society. Not much cultivated.

Cultural Notes.—It needs to be grown in a warm

Muscat house, and requires some care in setting the berries.

Season.—Late; hangs and keeps remarkably well.

Merits.—Third-class.

ST. PETER'S.—A synonym of Alicante: which see.

SARBELLE FRONTIGNAN (55).—A round black Muscat Grape. *Synonym*: Muscat de Sarbelle.

Vine.—Growth moderately strong, with a free constitution; free-fruited. *Leaves* small, roundish, deeply toothed.

Fruit.—*Bunches* small, and rather loose, indifferently set. *Berries* small, round, uneven in size. *Skin* dark purple, thick. *Flesh* dark, firm, sweet, and pleasant, with a slight Muscat flavour.

History, &c.—Received from the collection of Messrs. Rivers. Not much cultivated.

Cultural Notes.—An excellent small grape for cultivation in pots, and will ripen against the open wall in favourable seasons.

Season.—Early.

Merits.—Of excellent quality, but too small in bunch and berry.

SEACLIFFE BLACK.—A synonym of Gros Guillaume: which see.

SNOW'S MUSCAT HAMBURGH.—A synonym of Muscat Hamburg: which see.

STILLWARD'S SWEETWATER (33).—A round white Sweetwater Grape.

Vine.—Growth free; young shoots somewhat gross; fruitful.

Fruit.—*Bunches* medium-sized, rather broadly shouldered, on strong, fleshy stalks; freely and well set in general; very similar in appearance to the Dutch Sweetwater. *Berries* medium-sized, round. *Skin* clear, whitish, almost transparent. *Flesh* moderately firm, juicy, sweet, and pleasant.

History, &c.—I have not been able to trace it.

Cultural Notes.—Succeeds well in pots, and ripens freely in good seasons against an open wall.

Season.—Very early.

Merits.—Second-rate in quality, but worth growing for an early sort.

—A. F. BARRON.

HOW TO GROW MASDEVALLIAS.

AS the Masdevallias prefer cool treatment they are best kept in a house by themselves: they require but a small one, as they take up very little room: indeed they will thrive well enough in the Odontoglossum house, for if their few wants are attended to, there are no freer growing plants in cultivation. They increase very fast under good treatment, and soon repay all the care which is bestowed upon them. They last a long time in beauty and make grand exhibition plants, producing also, when in bloom, a charming effect in the houses if intermixed with the various Odontoglossums and other cool Orchids. There are so many varieties that some of them will always be in flower, but the

best time to see them is from May to July. They are so accommodating to the grower, that many wonderful specimens have been produced and exhibited during the last few years. When a plant is found to be too large it may be divided, and the divided portions will go on increasing.

We have found good fibrous peat and sphagnum moss to suit well as material for the potting of these plants. They thrive best in small pots. The roots should not be disturbed too often; when, however, they require fresh material to root in, it must be given them, as they are free rooting plants and prefer to have sweet wholesome soil about them. They must also have good drainage, for they need an abundant supply of water, and by giving them efficient drainage the water passes off quickly without doing any harm, which it would do if allowed to become stagnant about them. The plants should be placed near the light but so as to avoid the sun's rays. A north house suits them best, as it shields them in summer from the heat of the day, which they do not like, in fact, they should be kept as cool as possible at all times, very little fire-heat being required in winter, and none during the summer. They like fresh air, but in winter cold draughts must be avoided. We find that they will thrive well in a heat of from 45° to 50°: even somewhat less would suffice, but the temperature here named is the most suitable. Any one, therefore, who possesses a small low house could grow them at a trifling expense.

They are easily propagated by dividing the tufts, leaving about three old stems and a leading growth associated. The best time for the division to be effected is just as they are beginning to grow. They should be placed in small pots until they are established, when they should be removed to larger ones.

Insects should be annihilated as soon as they put in an appearance. The thrips is their greatest pest. Cool Orchids, as a rule, are also subject to the attack of a small kind of snail, that increases very rapidly, if not kept under by constant watching night and morning. A few lettuce leaves placed in different parts of the house, or potatoes or turnips cut in half and scooped out in the centre, form good traps for them, and by looking these over frequently many of them may be caught, as also by moving the plants, as they are apt to harbour about the pots.—B. S. WILLIAMS, in *Orchid Album*.



J. L. Macfarlane del.

W. & A. G. & Co. Lith. Chent.

Peach Waterloo

WATERLOO PEACH.

[PLATE 554.]

WE owe the opportunity to figure this new early American Peach to Mr. T. F. Rivers, of Sawbridgeworth, by whom it was fruited last season. It was raised at Waterloo, N.Y., by Mr. H. Lisle of that place, and passed into the hands of Messrs. Ellwanger & Barry, of Rochester, N.Y., who state that it is the first very early Peach raised in Western New York. It fruited for the first time in 1877, and then ripened several days earlier than the Alexander or the Amsden—two of the earliest of the American Peaches. In 1878 the first specimen ripened on July 14, and all the fruit was gathered by July 19, about a week in advance of the above-named sorts. In 1879 it ripened about three days in advance of Alexander. The fruit is full medium size, good specimens measuring nine inches in circumference, and weighing five ounces; the form is round with a deep suture, the apex slightly depressed with a short nipple; the skin is whitish-green in the shade, marbled-red deepening into purple-crimson in the sun; the flesh is greenish-white, melting and of good flavour, with abundance of sweet vinous juice, and is somewhat adherent to the pale yellow stone like Hale's Early, and the Amsden.

It would thus appear to have sufficient good points to make it worth trial amongst the earlier varieties of Peach now in cultivation; and we shall be glad to learn if any of our readers have had any experience in its cultivation. Mr. Rivers' report is altogether favourable.—T. MOORE.

POTATOS FOR EXHIBITION.

THE numerous exhibitions of Potatos now being held annually throughout the country has so operated to bring Potatos to the fore, that an apology is not here necessary for naming a selection of a few good varieties for show purposes. Here are the names of twelve varieties of excellent character:—*International Kidney*, *Cosmopolitan*, and *Magnum Bonum*, white kidneys; *Defiance*, *Mr. Breese*, and *American Purple*, coloured kidneys; *Schoolmaster*, *Porter's Excelsior*, and *Bedfont Prolific*,

white rounds; and *Vicar of Laleham*, *Radstock Beauty*, and *Grampian*, coloured rounds. As a matter of course, it would be unwise to grow only twelve varieties from which to select twelve dishes; and therefore an additional twelve should, at least, be added—of white kidneys: *Advance*, *Covent Garden Perfection*, and *Snowflake*; coloured kidneys: *Beauty of Hebron*, *Bountiful*, and *Garibaldi*; white rounds: *Feltham White*, *Climax*, and *Wiltshire Snowflake*; coloured rounds: *Beauty of Kent*, *Triumph*, and *Matchless*.

A selection of twelve of the best American varieties for show purposes should comprise *Adirondack*, *Matchless*, *Climax*, *Early Ohio*, *Oneida*, and *Triumph*, round varieties; and *American Purple*, *Mr. Breese*, *Beauty of Hebron*, *Snowflake*, *Trophy*, and *Breese's Prolific*, kidney varieties.

A selection of the twelve finest English raised Potatos should comprise *International Kidney*, *Cosmopolitan*, and *Advance*, white kidneys; *Schoolmaster*, *Porter's Excelsior*, and *Bedfont Prolific*, white rounds; *Defiance*, *Garibaldi*, and *Bountiful*, coloured kidneys; and *Radstock Beauty*, *Vicar of Laleham*, and *Grampian*, coloured rounds.—R. DEAN, *Ealing*.

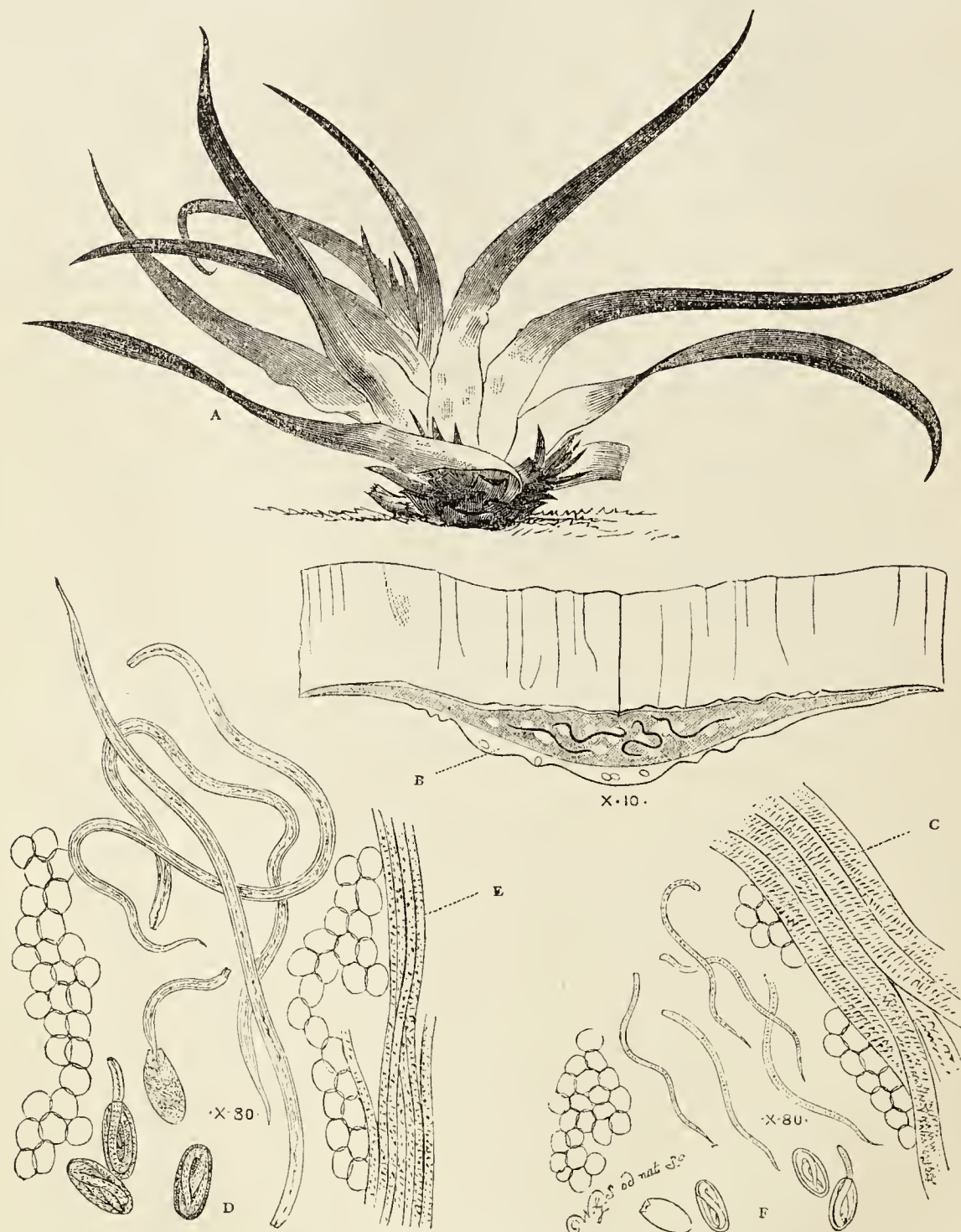
THE CARNATION DISEASE.

SOME time ago we sent to our great vegetable pathologist, the Rev. M. J. Berkeley, some examples of Carnations affected by what is called the gout, a disease which, commencing by a swelling and breaking up of the stems, gradually destroys the plant. "It appears," Mr. Berkeley observes (*Gard. Chron.*, N.S., xvi., 662), "in the form of pallid spots on the leaves, especially towards the crown of the plant, which in decay acquires a rusty tint. On examination of numerous spots in the different samples, I find, without exception, one or some examples of a Nematoid, belonging clearly to Dr. Bastian's genus *Tylenchus*. There is not room for large cysts, as in the Melon disease, but I find amongst the inter-cellular passages, which are very large, single cysts, wider than the adjacent cells, and in one case containing a single nematoid. I do not find the worms anywhere except in the pallid spot. I have hunted the root in vain. They

seem of various sizes, sometimes so long as to traverse the whole discovered spots, many dead, but some in active motion. More might doubtless be made out from specimens gathered at once. I have not seen fully developed

which may be infested by the worm. This is the more probable, as so many of Dr. Bastian's numerous nematoids occur in soil about the roots of plants."

At this point the subject was taken up by



CARNATION DISEASE. (From the *Gardeners' Chronicle*.)

females with eggs, but I believe that I have here and there found groups of oblong eggs, some ruptured at one end, as if the parasite had escaped. The only remedy is clearly death by burning, and not planting in the soil,

Mr. Worthington G. Smith, who wrote in the same journal (xvi. 721):—"The accompanying illustration is an attempt to show the nature of the disease of Carnations adverted to by the Rev. M. J. Berkeley in the *Gar-*

deners' Chronicle for November 19, 1881, p. 662. The plant illustrated at A is one of the examples forwarded by Mr. Thomas Moore to Mr. Berkeley, and by Mr. Berkeley sent on to me with a request that I would illustrate and describe it. The disease is caused by the presence of a nematoid worm belonging to the genus *Tylenchus*, as stated by Mr. Berkeley; and as it is to this gentleman that we are almost entirely indebted for our knowledge of nematoids in plants it is not without some hesitation that I accept the Bow of Ulysses, though in this instance proffered by Ulysses himself. When Mr. Berkeley first wrote on this subject his statements did not receive the attention they deserved, for, as is usually the case, some people could not and others would not see the nematoids.

"The symptoms of this disease in Carnations is manifested by large whitish or livid patches on the leaves, chiefly at and near the collar or crown of the plant as shown in the figure: at times these patches are higher up on the leaves. When a leaf is cut transversely through one of the livid spots and magnified ten diameters the cuticle is seen to be more or less disengaged from the cellular tissue on both sides of the leaf, as at B. If a good section is selected, the worms will be seen amongst the intercellular spaces of the substance of the leaf, as illustrated, and in some instances the eggs of the worms will be seen just within the skin, as shown at C. In the specimen illustrated the majority of the eggs were in the collar of the plant, near the root. At D is seen a fragment of the diseased Carnation leaf magnified 80 diameters, with the worms still within their eggs, emerging from them, and quite free: the worms are seen coiled up within the semi-transparent eggs at the bottom of the illustration at D; the common cells of the plant are seen on the right and left with vessels belonging to one of the leaf veins at E.

"One of the first things that struck me in the examination of these worms was their large size in comparison with the minute nematoids belonging to diseased Cucumbers as originally described and illustrated many years ago by Mr. Berkeley, in the *Gardeners' Chronicle*. On referring to my own drawings of the nematoids of Cucumbers I found the

difference in size very striking, and for the sake of comparison I have engraved the nematoids of Cucumbers at F to the same scale as those from the Carnation at D; the eggs and worms belonging to the Cucumber are seen in the middle of the illustration at F, the cellular tissue of the plant at right and left, and a group of vessels at G. Whether this difference in size is permanent, or whether it is of specific or of any importance I cannot say.

"The worms are no doubt (as suggested by Mr. Berkeley) derived from the soil. In this instance they appear to attack the collar of the plant, and at this position get inside; here they lay their eggs, which, when hatched, produce other worms, and these different generations of nematoids eat their way upwards inside the leaves, and their presence of course causes the dead and livid patches. Few plants can survive such serious injuries, for it is by the leaves that to a great extent plants are able to carry on their existence. Burning the plants is generally recommended as the only means for the extirpation of the nematoids, and no doubt this is the best plan with already ruined plants; but if the worms are first of all in the soil (as no doubt they are), one would think they could be easily reached by some distasteful dressing. The worms (as seen under the microscope) are very readily destroyed by the application of caustic materials."

REGISTER OF NOVELTIES.

IN our last issue we announced our intention to devote a portion of the *FLORIST* pages to a record of new introductions—a Register of Novelties—including New Plants introduced from foreign lands, New Flowers, New Fruits, and New Vegetables raised in our home gardens, when any of sufficient importance make their appearance; also New Garden Appliances in the multitudinous forms in which they find acceptance in modern gardens. We make a commencement now, and shall be thankful to our correspondents and readers for any help towards making this register more complete as we go forward. We adopt the term "Novelty" in rather a broad sense, as indicating not only subjects which are actually novel, but those

also which having long been lost may be re-introduced, as well as others which, though not strictly new, may happen, for the time, to come prominently to the front. Of such as may yield us suitable material we shall be glad to give a few descriptive notes.

NEW PLANTS.

ASTER GYMNOCEPHALUS, *A. Gr.*—A pretty half-hardy annual composite, from Southern Colorado and New Mexico. It grows 12 to 15 inches high, is of slender, bushy branched habit, the leaves narrowly lanceolate, bristle-toothed, the flower-heads $1\frac{1}{2}$ inch across, with rose-coloured ray florets. Flowers in summer and autumn.—W. Thompson.

EUSTOMA EXALTATUM, *Griseb.*—A handsome greenhouse biennial, a Mexican congener of *Lisianthus Russellianus*. It grows $1\frac{1}{2}$ foot high, with opposite elliptical stem-clasping glaucous leaves, and funnel-shaped flowers of a deep gentian blue, spotted at the base.—W. Thompson.

GRINDELIA GRANDIFLORA, *Hook.*—A showy, hardy composite biennial, from Texas, introduced some 30 years since, but then lost. It has tall corymbosely branched stems, with spatulate lower leaves and sessile cordato-ovate dentato-serrate upper ones, and large showy terminal orange-yellow flower-heads. It blooms the first year, if sown early.—W. Thompson.

MIMULUS FREMONTII, *A. Gr.*—A pretty dwarf perennial, from California, suitable for pot culture. Its tufted stems are 2 to 4 inches high, and have spatulate to oblong blunt leaves, and crimson flowers $\frac{3}{4}$ inch long, with a spreading limb.—W. Thompson.

NAMA PARRYI, *A. Gr.*—A desirable half-hardy Hydrophyllaceous perennial, from California, having woody stems 4 to 5 feet high, lanceolate, repandly-toothed leaves, and branched panicles of lilac-purple flowers arranged in dense scorpioid clusters, each flower about an inch in length, funnel-shaped, with a five-lobed spreading limb.—W. Thompson.

PYRETHRUM (Parthenium) AUREUM SELAGINOIDES.—A very neat and distinct form of Golden Feather, dwarf and compact in habit, with flat shallowly-lobed leaves so cut as to somewhat resemble a sprig of *Selaginella*, and of a bright yellow-green colour; "it does not flower the first year."—Hurst & Son.

SIDALCEA CANDIDA, *A. Gr.*—An interesting hardy Malvaceous perennial, from Colorado. It grows 2 to 3 feet high, having erect branched stems, with roundish seven-lobed glossy long-stalked leaves, and erect terminal racemes of pure white flowers, an inch across, produced copiously and in considerable succession.—W. Thompson.

TRICHOSTEMA PARISHII, *Vasey.*—An interesting half-hardy Labiate perennial, from South California, growing $1\frac{1}{2}$ foot high, half-shrubby, with simple stems, entire linear leaves, and long virgate interrupted spikes of bluish-purple flowers having very long projecting stamens, the whole inflorescence clothed with woolly purple hairs.—W. Thompson.

NEW FLOWERS.

AGERATUM FAVOURITE.—A charming bedding plant, 8—10 inches high, very compact in growth, and free blooming; the colour a delicate mauve.—Cannell & Sons.

AGERATUM IMPROVEMENT.—A decided advance upon the older favourite, Swanley Blue, producing large clustered panicles of the button-like flower-heads of the finest blue colour.—Cannell & Sons.

ASTER FAIR ROSAMOND.—A new type of the quilled series of the annual *Aster (Callistemma*

hortensis), having the quilled centre pure white surrounded by dark purple guard petals.—Betteridge.

CALCEOLARIA CLOTH OF GOLD.—The finest yellow *Calceolaria*; it is one of the grand herbaceous strain grown by Mr. Rapley, and was awarded a First-class Certificate by the R.H.S.; flowers very large (3 in. broad), of good form, and of a pure canary yellow.—Carter & Co.

CHRYSANTHEMUMS (Japanese).—So rapidly are these fine, distinct, and handsome decorative kinds being produced, that every year sees batches announced. The year 1881 appeared to be wonderfully prolific of new varieties; among these we made a note of the following as especially good when seen in flower:—*Agréments de la Nature*: flower-heads large, the florets, which are of a golden yellow colour, heavily shaded with reddish-brown, much twisted; distinct and striking. *Duchesse de Gerolstein*: flower-heads large, full, and finely recurved; colour bright rose and white; a very fine exhibition variety. *Etoile du Midi*: agate red, flushed with orange; flower-heads large, florets broad, somewhat recurved; very fine. *Flambeau*: rich orange crimson, the reverse of the florets golden yellow; the centre ones incurved, the outer reflexed, giving the bloom a most distinct appearance; extra fine. *Illustration*: dull red, flamed with golden yellow; flower-heads large and full; distinct and pleasing. *Rêve de Printemps*: habit dwarf; flower-heads large and very double; colour dull rich violet carmine; distinct and fine. *Riche Bouquet*: very pale lilac shaded with rose, the florets margined with white; very early, dwarf habit; very good. *Rubra striata*: pale gold, flamed and streaked with violet and crimson-red; when the markings are perfect, this is a singularly attractive variety; a great novelty. *Striata perfecta*: flower-heads large and double; colour white, flamed and streaked with rosy violet; extra fine.

Of the Incurved varieties distributed in 1881, *Angelina* must take a high place; the colour is golden amber shaded with cinnamon, full, finely incurved, of handsome outline, and extra fine for exhibition. An older sort named *Mr. Bunn* has been so fine during the autumn as to deserve special mention. It is a sport from Beverley, but with longer and better florets, and deeper in colour.

The following new varieties of Pompons were raised by Mr. C. Langlois, of Jersey; they are seedlings of 1880, and are well worth attention:—*Mrs. C. Langlois*: the flower-heads of this variety are about two inches across, of a pretty lively rosy pink colour, the florets remarkably broad for the size of the flower, which is quite full to the centre. *Miss Lavinia Hutchings*: rather smaller than the former, and peculiarly close and button-like; the flower-heads measure about an inch across and are about the same in depth, the florets small and very compactly set, forming a full globular head; the colour is blush-white, the florets being tipped with purple at the back, and these being evident in the centre of the flower-heads until it is quite fully open, they give it the appearance of having a purplish centre. The flower-heads in this variety are clustered near the ends of the shoots.

ESCHSCHOLTZIA (californica) ROSE CARDINAL.—A very pretty, distinct, and novel annual, selected from the variety called Mandarin, from which, however, it is very dissimilar, the colour being of a soft clear delicate satiny tint of purplish rose.—Carter & Co.

FUCHSIA RUBRA.—A very attractive winter-blooming greenhouse shrub, raised between *Dominiana* and *serratifolia*. It is of robust habit, with bold dark green leaves, and clusters of long-tubed handsome flowers, of which the tube and sepals are

deep red crimson, and the corolla bright orange red. It has received a First-class Certificate from the R. H. S.—Cannell & Sons.

GAILLARDIA PICTA, var. LORENZIANA.—A very handsome and distinct variety, in which the whole of the florets, both of the ray and disk, are transformed into petaloid enlarged and prolonged regularly 4–5 cleft tubular florets, so as to form a “double flower” of nearly globular outline; they vary in colour, but the usual type is a golden yellow with purplish-crimson base, the one or other colour predominating in various degrees.

POLYANTHUS (Gold-laced) CRITERION.—A very fine modern variety of the true florists’ gold-laced type, raised by S. Barlow, Esq., of Manchester; it is in the style of Cheshire Favourite, that is, a black-ground flower, with very correct lacing, is regarded not only as an improvement on that fine old sort, but as being a better grower.—Cannell & Sons.

VIOLET LEE’S PRINCESS OF PRUSSIA.—Probably the finest single dark hardy Violet in cultivation, possessing in a high degree the requisite properties of size, form, and substance; the flowers are larger than those of *Victoria regina*, finely shaped, and deliciously fragrant, the colour being a fine rich purple. The foliage is good, and the flowers grow on long wiry stalks, so that they bunch readily.—G. Lee.

NEW VEGETABLES.

BROCCOLI.—*Ledsham’s “Latest of all”*: a new late white variety, which is self-protecting, and so late in turning in that it lasts until the time when the early cauliflowers are ready; its robust constitution enables it to withstand the severest winters (see figure).—Waite, Nash, Huggins & Co.

ONIONS.—*Carter’s Golden Queen*: a golden straw-coloured form of the well-known White Queen, which it resembles in rapidity of growth and good keeping qualities; 1 to 1½ inch diameter; flavour delicate;



BROCCOLI, LEDSHAM’S LATEST OF ALL.

POLYANTHUS (Gold-laced) SUNRISE.—This fine variety was also raised by Mr. Barlow, and as shown by the portrait published in the *FLORIST* is a very first-rate variety; it belongs to red-ground class, and has a well-defined lacing of a golden yellow colour, the red being bright and long-enduring.—Cannell & Sons.

TROPEOLUM (Tom Thumb) EMPRESS OF INDIA.—The most brilliant of all the dwarf annual *Nasturtiums*; it is of compact habit, about six inches high, and very free blooming, with small dark bluish-green leaves, and large showy flowers of a deep rich brilliant crimson, with a velvety gloss, far in advance of any of the older dwarf scarlet varieties. The plate in our last volume by no means exceeds the brilliancy of the flower itself, indeed art can but approach it.—Carter & Co.

VERBENA HAMPTON COURT CRIMSON.—A splendid novelty, adapted for bedding purposes, somewhat resembling *Crimson King*, but of stronger growth; the flowers of a brilliant crimson.—Cannell & Sons.

handsome, and turns in very early.—Carter & Co. *Carter’s Silver Ball*: a distinct and very handsome silver-skinned Tripoli variety, almost globular in shape, with a beautiful silken skin; mild flavour.—Carter & Co. *Golden Globe Tripoli*: a variety growing to the size of the Giant Rocca, the skin of a transparent golden straw colour; a fine exhibition variety.—Carter & Co.

PEAS.—Amongst the earliest announcements of the novelties of the year are those of the new varieties of Peas, as representing one of our most important vegetables. They have been numerous of late years, and though no very great advance in earliness has been secured, yet a higher degree of quality has been combined with prolificacy and comparatively dwarfness of habit. *Carter’s Pride of the Market* is claimed to be “the best main crop market pea in cultivation,” and certainly it is a most productive variety; it grows 1½ to 2 feet high, robust, freely branching, and immensely productive, podding from top to bottom, the pods very large, and filled with large peas of

excellent flavour.—Carter & Co. *Carter's Strata-gem*: a dwarf, robust, hardy wrinkled blue marrow pea of the finest quality, a heavy cropper, with large remarkably well-filled pods, often containing 10 large fine-flavoured peas; grows 2 feet high, and is considered remarkable for its sturdy branching habit.—Carter & Co. *Culverwell's Giant Marrow*: a grand blue wrinkled marrow pea, 5 to 6 feet high, of strong branching habit; covered with large pods containing 10 to 13 very large peas of the finest flavour; "unequalled as a main crop sort."—C. Sharpe & Co. *Dean's Dwarf Marrow*: like *Advancer*, but a more compact grower and prolific bearer; grows about two feet in height, and averages nine peas in a pod. An excellent variety for small gardens.—Hurst & Son. *Edinburgh Beauty*: one of the earliest of dwarf marrow peas, 1½ feet high, with several strong stems, bearing "a profusion of well-filled pods containing peas of the finest flavour." The seed "should not be planted thicker than beans"; well attested.—Hurst & Son. *Laxton's Earliest of All*: a dwarf early variety, preceding any other known pea; very prolific; good, well-filled pods, and excellent quality.—Hooper & Co. *Laxton's John Bull*: a blue wrinkled main crop pea of the first size and quality, from the same crop as *Marvel*; pods abundant, larger, deeper-coloured, and less curved than those of *Marvel*, densely filled with 9–13 compressed peas, of excellent flavour.—Hurst & Son. *Laxton's Minimum*: "the dwarfiest of all peas," and earlier than *Little Gem*, a white marrow, very prolific, "the crop being practically all corn." The best of all peas for frame culture and for forcing.—Hurst & Son. *Williams' Holloway Rival*: a splendid early wrinkled variety, 2½ to 3 feet high, robust, prolific, the pods containing 8 or 9 peas of delicious flavour.—Hurst & Son.

POTATOS.—A few new English sorts are already announced.—*Cosmopolitan*: a fine white kidney, the produce of a cross between the large white American *Success* and *Woodstock Kidney*; it is early, very productive, of handsome form, and fine quality.—R. Dean. *Defiance*: a very handsome and distinct kidney, of a violet-purple colour, white flesh, a heavy cropper, and of good quality.—C. Lee & Son. *Duke of Albany*: a white kidney, the result of a cross between *Beauty of Hebron* and *Early Good-erich*; short-haulmed, very early, fine quality, a heavy cropper, and keeps well.—C. Sharpe & Co. *Early Cluster*: a very early white round, producing a wonderful cluster of handsome tubers of the finest quality; very dwarf, and an excellent variety for pot-culture and frames.—R. Dean. *Sharpe's Victor*: a seedling raised from the *Alma Kidney* and the *Early Short Top*; round; it is strongly recommended for pots and frames.—C. Sharpe & Co.

The following are of American origin:—*Adirondack*: a pale blush-coloured round sort; handsome, productive, and of good quality; fine for exhibition.—Hooper & Co. *Queen of the Valley*: a large and coarse-looking white oval-shaped variety, of fine form and quality; an immense cropper.—Hooper & Co.

TOMATOS.—*Abundance*: the chief features of this variety are productiveness, solidity, and firmness; it grows to a large size; colour scarlet.—Hooper & Co. *Carter's Dedham Favourite*: a very fine and prolific variety, certificated by the R.H.S. It is in the way of *Criterion*, which is probably one of its parents, but is larger, globular, without corrugations, and of a ruby red colour; remarkable also for solidity and high quality.—Carter & Co. *President Garfield*: a very coarse-looking sort, remarkable for its ugliness, the fruits being very deeply ribbed, with, in addition, a circular depression, producing a resemblance to a Turk's-cap Gourd; said to have reached 48 oz. in weight, and to be of fine flavour. *Trentham Early Fillbasket*: a variety raised at Trentham from a cross

between *Trophy* and *Criterion*; of handsome globular shape, with smooth even surface, fine bright colour, and wonderfully prolific, setting fruit at every joint; the quality is first-rate, fully equal to *Trophy*.—Veitch & Sons.

NEW PUBLICATIONS.

Under this sub-head we intend to notice briefly the novelties described or figured in the principal Horticultural publications, home and foreign.

BOTANICAL MAGAZINE.—The December number contains figures of the following subjects:—*Clematis coccinea*, Engelm [t. 6594]—A slender creeper from Texas, allied to *C. Florna* but differing in its scarlet flowers, and its glaucous reticulated leaflets, which are 3 to 5, ovate or ovate-cordate; the flowers are ovoid with recurved sepals; flowered in a cool conservatory at Kew. *Salvia columbariae*, Benth. [t. 6595]—A dwarfish California annual, with oblong lobulate radical leaves, and whorls of deep blue flowers; produced at Kew in June. *Aloe Perryi*, Baker [t. 6596], from Socotra, and which yields the Socotrine aloes of the materia medica; it has short simple stems, surmounted by greyish lanceolate toothed leaves, and a tall simple or branched raceme of bright red yellow-tipped tubular flowers; flowered at Kew. *Calceolaria Sinclairii*, Hook [t. 6597]—A New Zealand species 1 to 2 feet high, with long-stalked ovate or oblong leaves, and loose cymes of bell-shaped flowers, pale flesh-coloured externally, spotted with purple inside; raised by Mr. Anderson-Henry. *Piptospatha insignis*, N.E. Br. [t. 6598]—A dwarf Arad from Borneo, with narrow elliptic lanceolate leaves, and short nodding closed spathes, which are white suffused with rose; of little beauty. *Escallonia rubra punctata*, Hook f. [t. 6599]—A pretty free-flowering Chilean shrub, with elliptic ovate finely serrated leaves, and terminal corymbs of deep red flowers; flowered at Kew, against a south wall, in July.

ICONOGRAPHY OF INDIAN AZALEAS.—M. Auguste Van Geert's new work on Azaleas has reached the third number, and is improving as it proceeds. The varieties figured are:—1. *Alba speciosa plena*; 2. *Madame Paul De Schryver*; 3. *Antigone*; 4. *Elise Lieber*; 5. *Madame Louis Van Houtte*; 6. *James Veitch*; 7. *Madame Louisa de Kerchove*; 8. *Camille Vervaeke*; 9. *Roseo-picta*.

GARTENFLORA for November contains figures of *Allium stipitatum*, Rgl. [t. 1062, fig. 1–3], a hardy bulb from West Turkestan, grows 3 feet high, with linear-lanceolate leaves, and hemispherical large heads of narrow-petaled rosy-lilac fragrant flowers; allied to *A. atropurpureum*. *Allium Suworowi*, Rgl. [t. 1062, fig. 4–5], a hardy bulb from Turkestan, smaller than the last, with linear-ligulate flaccid leaves, and small globose umbels of sweet-scented rosy-violet flowers. *Statice callicoma*, C.A.M. [t. 1063, fig. 1], a hardy perennial from East Turkestan, having the aspect of *S. incana*, with a tuft of spatulate mucronate lepidote leaves, and branched cymes, with triquetrous branches of pinkish-lilac flowers. *Aconitum rotundifolium*, Kar. et Kir. [t. 1063, fig. 2], a curious hardy perennial from Taschkend in Central Asia, growing 1½ foot high, with roundish-cordate lobed radical leaves, and few flowered racemes of green and white flowers. *Tanacetum leucophyllum*, Rgl. [t. 1064], a hardy perennial from East Turkestan, of branched decumbent habit, with greyish silky stems and leaves, the latter bipinnatifid, and small stalked heads of yellow flowers.

L'ILLUSTRATION HORTICOLE (10 liv.) contains figures of *Pescatorea Klabochorum*, Rehb. f. [t. 431]

a lovely New Grenada Orchid, with thin lanceolate leaves, and large showy flowers, white tipped with rosy purple, which seem to vary considerably in different plants according to the figures published. *Salvia brasiliensis*, M. Issanchou [t. 432], a variety of *S. splendens* in which the calyx is yellow striped with red, and the corolla white stained with rose at the base. *Cycas siamensis*, Miq. [t. 433], a handsome Cycad, with an erect simple trunk, 8 to 10 feet high, and a crown of about forty spreading leaves, having close set broadly-linear leaflets.

REVUE DE L'HORTICULTURE BELGE, for December, figures *Ophiopogon Jaburan aureo-variegatus*, a very handsome greenhouse perennial, with broad linear leaves striped with yellow, and long spikes of deep purple flowers.

REVUE HORTICOLE, for December (1, 16), figures *Oncidium Weltoni superbum*, a finely-coloured variety of a beautiful orchid, the sepals and petals crisped and edged with white, the lip deep violet-rose broadly edged with white; and *Solanum betaceum coccineum*, with bunches of smooth egg-shaped scarlet fruit, as large as a bantam's egg, raised by M. Alliaume, gardener at the Military Hospital at Vincennes. M. Carriere suggests that as the fruit is eatable it might be crossed with the Tomato.

GARTEN-ZEITUNG, for January, which replaces the Berlin *Monatsschrift*, opens with a figure of *Nymphaea zanzibariensis*, Casp. [tab.], a fine water-lily collected by the African traveller Hildebrandt, and which has deep violet-coloured flowers. The number also contains a woodcut of *Clematis Max Leichtlin*, a large white variety of the lanuginosa section, the result of a cross between *C. Lawsoniana* and *C. Thomas Moore*.

BULLETINS D'ARBORICULTURE, etc., for December, contains a plate of the *Peach Belle Impériale*, a variety bearing large fruit, of the finest quality.

THE GARDENERS' CHRONICLE (November 19—December 17) describes or figures the following novelties:—*Taccarum Warmingianum*, Eng. (p. 654, fig. 134), a noble Brazilian tuberous-rooted Arad, with a solitary three-parted bipinnatifid leaf, 2½ feet across, on a stout green white-lined petiole 3 to 3½ feet high, and a coppery-brown oblong spathe 15 in. long, on a scape 8 in. long. *Adiantum cuneatum grandiceps*, Moore (p. 685), a finely tasselled form of this useful decorative species. *Adiantum Lathomii*, Hort. (p. 685), a fine large-growing decorative fern of drooping habit, probably a sport from *A. Ghiesbreghtii*; raised by Mr. Bause for the General Horticultural Company. *Nepenthes madagascariensis*, Poir. (p. 685), a very handsome pitcher plant from Madagascar; the pitchers are small (2½ to 4 or 6 in. long), flask-shaped, with a narrow border and a pair of fringed wings, crimson, the lid transversely oblong, with a small spur at the back. *Polystachya hypocrita*, Rehb. f. (p. 685), a tropical West African Orchid, with panicles of pale green flowers, having a whitish crisp lip. *Aulacophyllum Wallisii* (p. 685), a remarkably fine Cycad, of which, according to Mr. Tbiselton Dyer, the plant known in gardens as *Zamia amplifolia* is a juvenile form. *Saccolabium Graeffei*, Rehb. f. (p. 716), a very fine Fiji Orchid, with broad ligulate bilobed leaves, and spikes of conspicuous deep purple flowers; flowered by T. Christy, Esq. *Masdevallia inflata*, Rehb. f. (p. 716), a curious little Orchid, closely allied to *M. corniculata*, with orange yellow flowers. *Lalia Perrinii irrorata*, Rehb. f. (p. 717), a fine variety of the lightest rose colour, the lip nearly white with a pale yellow disk and light purple apex; flowered by W. Lee, Esq. *Lycaste Deppeii punctatissima*, Rehb. f. (p. 717), a variety with whitish-green purple-spotted sepals and petals, and a yellow lip with dark purple radiating lines; flowered by Mr. B. S. Williams. *Stelis grossilibris*, Rehb. f. (p. 717), a curious little Orchid, with

short racemes of light green flowers, the lip forming a thick fleshy mass; flowered by Mr. Bull. *Microstylis ventilabrum*, Rehb. f. (p. 717), an interesting Orchid from the Sunda Isles, allied to *M. Rheedii*; the leaves are green with brownish nervation, and the racemose flowers yellow, with a broad square lip. *Trichocentrum Hoegi*, Rehb. f. (p. 717), a small Mexican Orchid, with horny oblong acute leaves, and a solitary large greenish yellow flower, having the emarginate undulate lip white with purple lines at the base; the lip has a clavate spur. *Nepenthes Northiana*, Hook. f. (p. 717, fig. 144, and supplement sheet), the noblest of the introduced species of pitcher plant found by Miss North at Sarawak, and imported by Messrs. Veitch & Son; the adult pitchers, of which dried specimens only are in this country, are from 12 inches to 16 inches in length, 3 inches to 5 inches in width, elongate, cylindrical, slightly-curved, purple-spotted, the mouth elliptic oblique, surrounded by an everted finely-ribbed margin, 2 inches broad; the lid ovate-oblong, shining and dotted with black within. As in *N. Rafflesiana*, the upper pitchers swinging unsupported are trumpet-shaped, while those which rest on the ground are larger and more distended. *Phalanopsis Stuartiana*, Rehb. f. (p. 748, fig. 149), a grand novelty introduced by Messrs. Low & Co., related to *P. Schilleriana*, with the young leaves marmorate, the flowers in large panicles (sometimes 120 flowers), creamy white, handsomely spotted with yellow and cinnamon red on the lateral sepals and lip. *Nepenthes Mastersiana*, Hort. (p. 748, fig. 148), a garden hybrid between *N. sanguinea* and *N. khasyana*, the former being the seed parent; it is a handsome plant, with cylindrical or slightly distended claret-red pitchers. *Angraecum fastuosum*, Rehb. f. (pp. 748, 844), a fine Madagascar Orchid, with cuneate-oblong blunt leaves, and racemose flowers, supposed to be white, as large as those of *A. caudatum*, and having a filiform spur 2 to 3 inches long. *Nepenthes Veitchii*, Hook. f. (p. 780, fig. 152), the true plant, not the one usually grown for it (which is *N. villosa*); the pitchers are 12 inches long, cylindrical, with two lacinate wings, a remarkably broad finely-ribbed creamy olive border, and a small lid; introduced from Borneo by Messrs. Veitch. *Dendrochilum uncatum*, Rehb. f. (p. 780), an elegant little Orchid from the Philippine Islands, with nodding racemes of hyaline green flowers; Low & Co. *Vanda Boxallii Cobbiana*, Rehb. f. (p. 780), a variety with large milk-white flowers, with small purple stripes at the base, the inner half of the lateral sepals being dark purple brown; Low & Co.

GARDEN GOSSIP.

THE following are the dates of the Royal Horticultural Society's Exhibitions and the meetings of the Fruit and Floral Committees in 1882:—January 10, February 14, March 14 and 28, April 11 and 25, May 9 and 23, June 13 and 27, July 11 and 25, August 8 and 22, September 12, October 10, November 14, December 12. National Auricula Society's Show, April 25; Great Summer Show, May 23, 24, and 25; Pelargonium Society's Show, June 27; National Rose Society's Exhibition, July 4; National Carnation and Picotee Society's Show, July 25; Exhibition of British Bee-keepers' Association, August 3 to 8; Artisans' and Cottagers' Show, August 7.

— THE arrangements of the Royal Botanic Society for 1882 include an Exhibition of Spring Flowers on March 29 and April 26;

a Summer Exhibition of Plants and Flowers, May 17; an Evening Fête, June 21; and an Exhibition of Plants, Flowers, and Fruit, July 5.

— DURING 1882 the EXHIBITIONS AT THE ALEXANDRA PALACE, bearing on Horticulture, will include a Permanent Exhibition of Appliances used in Gardening matters, such as Machinery, Tools, Garden Furniture, Garden Ornaments, Buildings, Designs, &c., and medals will be awarded to noteworthy articles. Every Saturday there will be a Flower Mart; every Bank Holiday a Grand Flower Fair; and Rose Fairs weekly during July and August. There will also be held the following Special Exhibitions:—In April, Hyacinths; May, Hardy Azaleas, Clematis, and Pot Roses; June, Rhododendrons; July, Roses; September, Gladioli; October, Gourds; and November, Hardy Fruits. Prize Exhibitions are intended to take place monthly, the subjects selected being—in January, Hardy Trees and Shrubs, and Fruit; February, Spring Flowers; March, Spring Flowers and Camellias; April, Forced Vegetables, Hyacinths, &c.; May, Tropical Plants and Pot Roses; June, Decorative Exhibition and Pelargoniums; July, Grand Rose and Fern Show; August, Lilies and "Geraniums," and Gooseberry Show; September, Autumn Flower Show—Hollyhocks, Gladioli, Dahlias, &c.; October, Gourd and Grape Show; November, Hardy Fruit Show; December, Chrysanthemums, Hardy Trees, and Fruits.

— AT the annual meeting of the NATIONAL ROSE SOCIETY it was arranged that a show should be held at Bath, in the end of June: one in London, at the Royal Horticultural Society, on July 4; and a third at Darlington, on July 21.

— A PRESENTATION has recently been made to Mr. E. S. DODWELL, on the occasion of his removal, through failing health, from London to Oxford. It was at once an expression of sympathy on the part of his brother florists, and a slight recognition of his successful labours amongst florists' flowers, especially the Carnation and Picotee, as well as of his services in other departments of floriculture, not the least important of which has been the establishment of the Southern branches of the National Auricula, and the National Carnation and Picotee Societies. The fund subscribed, amounting to 100 guineas, clear of expenses, has been handed over to him, with the following resolution:—"The Committee of the Dodwell Testimonial Fund, in instructing the Treasurer to transmit to Mr. E. S. Dodwell the amount which has been subscribed, accompanied by a list of the Donors, desire to give expression to their feelings of hearty sympathy with their friend in his bodily sufferings, and to signify their ardent hope that he may speedily be restored to health, and spared to attend at their floral gatherings for many years to come." Mr. C. Turner acted as Treasurer, and Mr. T. Moore as Secretary.

— A SECOND volume on RULES AND BULB CULTURE by Mr. D. T. Fish, and also a treatise on the WALNUT and other Nuts (*Bazaar Office*) have recently been published. We cannot endorse all Mr. Fish's conclusions, as, for example, where, in treating of Dahlias, he tells us that "*D. Decaisneana* is another species of the *coccinea* type," which is very wide of the mark; and there surely must be some confusion of ideas about the name

"*Iris acorus graminifolia*" which we find doing duty in a list of beardless Iris well worthy of cultivation, and which is described as "a small grass-like leaved species of great delicacy and beauty," but which surely is no Iris at all, but a member of the Araceae, or, as some have it, the Orontiaceae order. Nevertheless Mr. Fish's handbook may be usefully consulted for many cultural hints.

— HORTICULTURAL BUILDINGS. We are informed that Her Majesty has been graciously pleased to accept a copy of Mr. Fawkes' new illustrated work of reference on the construction of *Horticultural Buildings*, recently published.

— THE HORTICULTURAL DIRECTORY for 1882 (171, Fleet Street) is this year issued at half its former price, without any diminution of its contents, and appears to have been carefully revised throughout. It, however, wants extension, many well-known gardens being omitted: for example, Henwick Grange, which has for some years been noted for its fine exhibition specimens, is not included.

— IN the temperate house at Kew there has been during the past autumn quite a display of the beautiful DAHLIA IMPERIALIS. The plants were about 8 ft. or 10 ft. high, and at the top of each stout stem was a loose head of flowers averaging about a dozen on a plant. The flowers being large, of a delicate bluish tint, and pendulous, had a peculiarly beautiful appearance, being set off by the large handsome foliage. This system of treatment seems to be the only way of growing this tender Dahlia with any degree of satisfaction, as it is too late for outdoor culture, and too tall for any but lofty houses. The *Dahlia excelsa* requires similar treatment.

— THE GARDENER'S YEAR-BOOK for 1882 (171, Fleet Street) is one of the indispensable reference books of the gardener's library, and is this year fully up to the average in merit and utility.

In Memoriam.

MR. HENRY SANDERSON, florist, Whalton, Newcastle-on-Tyne, died recently, at the age of 29 years. Owing to ill-health he was prevented from following the occupation of his father, and since 1871 has devoted himself to the cultivation of florists' flowers. The gold-laced Polyanthus was his special delight. He commenced the cultivation of this favourite old flower with a few plants of Buck's George IV., Burnard's Formosa, and Stead's Telegraph, which were the sole remains of some twenty-six varieties cultivated by his father. Amongst his seedlings were William IV., a useful pale red ground flower, and Formosa Improved. Since producing these he has flowered some thousands of seedlings, of which only about thirty were selected—some, it is said, being of a very high order of merit, equal to the best, and superior to most of the named varieties now in cultivation. Mr. Sanderson also devoted much time to the Auricula, and the Carnation, Picotee, Pansy, Aster, and Marigold were subjects of his care. He was one of the most successful exhibitors of florists' flowers in the North of England, and was greatly respected and esteemed by all florists who had the pleasure of his acquaintance.



J. S. Waterhouse del.

Dahlias!

Chromo P. Strobant. Thee

1, Pioneer. 2, Duchess of Wellington.

NEW SHOW DAHLIAS.

[PLATE 555.]

THE enthusiasm with which the Dahlia—the Queen of Autumn flowers—was cultivated some quarter of a century ago, has in some measure cooled down during the past few years, partly, no doubt, owing to the lack of the stimulus given by exhibitions worthy of the name. Now, however, another turn of the wheel of fortune seems to be about to bring it again into popularity, for we learn that the principal growers are concerting measures to hold a Grand National Show of these flowers during the ensuing autumn, “in order to give the public an opportunity to see the many beautiful varieties of all classes, which are now to be found in collections of Dahlias, whether cultivated for exhibition purposes or for garden decoration.” This show has been fixed to take place at the Crystal Palace, on the 8th and 9th of September next, which being in the height of the Dahlia season may be expected to be well supported, as it is intended that liberal prizes should be offered.

No doubt since any great show of Dahlias has been held, both the flower and its cultivation have gone on improving. This is a good reason for now bringing it prominently before the public; but we think the introduction of the beautiful little Pompons, and the highly decorative Single-flowered varieties of certain well-known types, will have largely increased the constituency of Dahlia admirers, and we therefore look forward to the ensuing exhibition as likely to be a successful and welcome demonstration.

We have always been advocates of the now popular Single Dahlias, than which—if the dwarf-growing varieties of the true *coccinea* and *gracilis* types are selected—no more

showy or pleasing border flowers are to be found. The little Pompons also come into the same category, and, especially those dwarf varieties which throw the flowers well out of the foliage, are admirably adapted for flower-garden decoration. Neither of these groups appear, or are put forward, as the rivals of the good old-fashioned show Dahlias which exhibit all the “properties” required by the florist, these occupying an entirely different platform, but they all find admirers, who take pleasure in their cultivation, and peradventure may sometimes be found growing side by side.

The varieties we now figure belong to the show class, and we are indebted to Mr. Charles Turner, of Slough, for the blooms here pictured. Fig. 1 represents *PIONEER*, one of the darkest of Dahlias, darker even than the old *Essex Rival*, which has long since gone out of cultivation, and which according to the present ideas as to form, had nothing but its deep rich colour to recommend it. *Pioneer*, on the other hand, is finely formed, of good average size, and of a free dwarf habit; the colour appears almost black, so intense is the shading which pervades the dark maroon florets. Fig. 2, *DUCHESS OF WELLINGTON*, a dwarf free-habited variety, if not so perfect in the form of its blooms as *Pioneer*, has the pleasing characteristics of a pure white ground, with deep crimson tips, a class of flowers we are getting short of, *Lady Gladys Herbert*, which is one of the best, being not only wanting in form but also in depth. Both varieties were raised by the Rev. C. Fellowes, Shotesham Rectory, to whom we owe the production of so many of our popular and best exhibition varieties, and both are remarkable on account of their dissimilarity from existing kinds.—T. MOORE.

LOUISE BONNE DE PRINTEMPS PEAR.

THERE is something captivating in the name of this Pear, the *Louise Bonne* of Jersey being so well known and appreciated, that the thought of securing a little of its goodness in spring (*printemps*) makes every one almost long to secure this *Louise Bonne de Printemps*. It is not quite a new Pear, having been raised by Boisbunel in 1857, and has been cultivated in the Royal

Horticultural Society's Gardens for some 10 or 15 years, where it has occasionally fruited, and been occasionally favourably reported on. Amongst late spring Pears it is probably worthy of a place, but it bears no comparison with its autumn namesake. The *Congrès Pomologique* of France discarded it; but nevertheless at Chiswick it has this present season proved very good indeed in quality, though, like all

other late Pears, it has ripened long before its proper time.

The fruit may be described as of medium size, somewhat in appearance like that of the Louise Bonne of Jersey, but much splashed with russet, giving it a roughish look. The flesh is half melting, somewhat gritty round the core, moderately sweet and pleasant. Its season of ripening is generally during February and March. It is always best in warm seasons.—A. F. BARRON.

VINES AND VINE CULTURE.

CHAP. XVIII.—THE VARIETIES OF GRAPES.

(Continued.)

THE descriptions of the varieties of Grapes included in our Synoptical Table are here continued from page 8:—

ST. LAURENT (59).—An oval white Muscat Grape. *Synonym*: Muscat St. Laurent.

Vine.—Growth moderately strong; very fruitful. *Leaves* small, rounded, and not much serrated.

Fruit.—*Bunches* small, very compact, very closely and freely set. *Berries* small, roundish oval. *Skin* very thin, of a pale amber-yellow colour. *Flesh* tender, very juicy, sweet, and pleasant, with a strong Muscat flavour.

History, &c.—Received from Messrs. Rivers, and fruited at Chiswick.

Cultural Notes.—Well adapted for culture in pots, being extremely fruitful; it ripens in good seasons on the open wall.

Season.—Very early.

Merits.—First-rate in quality; one of the best of the small Muscat Grapes.

STRAWBERRY (99).—A round black Perfumed Grape. *Synonym*: Raisin Framboisier.

Vine.—Moderately robust and free in growth; young shoots ripening freely, the bark dark brownish red in colour; very distinct, and very fruitful. *Leaves* medium-sized, roundish, and but slightly lobed, rugose on the surface, very downy beneath—resembling in this character the native American grapes.

Fruit.—*Bunches* very small, from 3 to 4 inches long, close and compact; freely set. *Berries* small, roundish, sometimes a little ovate. *Skin* thick, membranous, dark purple with a fine bloom. *Flesh* dark, thick or mucilaginous, parting freely from the skin, but requiring some effort to secure it in the mouth. *Flavour* a very peculiar mixture of that of the strawberry and grape, sweet and pleasant, very highly perfumed, so much so that a small plant in a house with the ripe fruit on it will fill the air with a strong perfume similar to that of ripe raspberries.

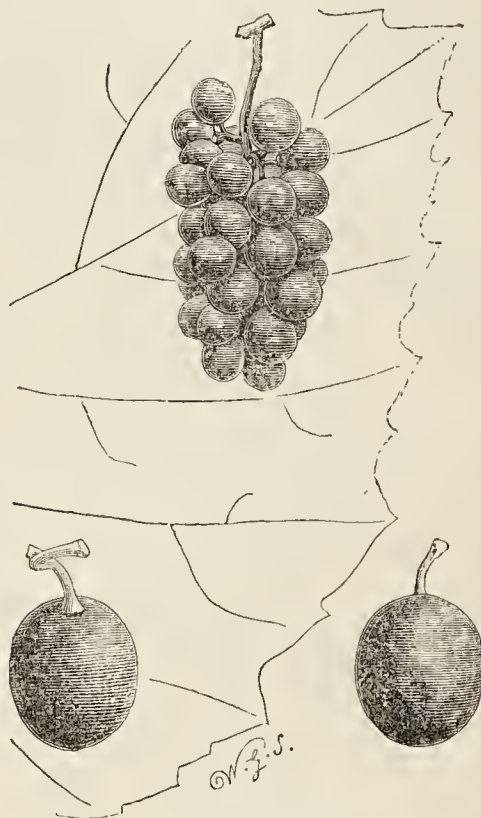
History, &c.—This singular grape is generally assumed to be of American origin, on account, it may be supposed, of the great similarity in the leaves, and in the character of the fruit, to the native American grapes. It is, however, not so, the variety being of European origin. Lady Cave sent me some fruit from near Montreux, on the Lake of Geneva, and stated that she found it in the market

at Gray, on the Saône, west of Dijon, which almost fixes its nativity to that district. It is grown in this country more as a curiosity than for the value of the fruit. The late Duke of Devonshire, it was said, was very fond of it, and Mr. Paxton had to grow the fruit specially for his Grace. During the past year (1881) I have met with it at Lord Brownlow's, Ashridge Park, at Lord Rosebery's, Mentmore, and at the Duke of Bedford's, Woburn.

Cultural Notes.—Requires no particular care, but will fruit, and ripen its fruit well, in any ordinary vinery. It does well in a large pot, and this is the best way to cultivate it, as it is scarcely worth a permanent situation.

Season.—Mid-season.

Merits.—Third-rate in appearance and quality, but worthy of cultivation for its perfume, and interesting character.



STRAWBERRY GRAPE.

SYRIAN (90).—An oval white Vinous Grape. *Synonym*: Terre de la Promise.

Vine.—Growth very strong and robust; moderately fruitful. *Leaves* large, downy, deeply-lobed and toothed, dying off yellow.

Fruit.—*Bunches* very large, loose, from 18 to 24 inches, frequently more, in length, and having very broad loose shoulders; sets freely. *Berries* large or above medium size, ovate. *Skin* rather thick, greenish-white. *Flesh* firm, moderately juicy, sweet and moderately rich when well ripened, but having no particular flavour.

History, &c.—A very old grape to be found in most old gardens, but very seldom planted now. Speechly of Welbeck is reported to have grown a bunch of this variety which weighed over 19 lb., which was the largest bunch on record until 1875, when it suffered a double eclipse in Scotland, as noticed in our account of the Trebbiano Grape.

Cultural Notes.—Will succeed under similar

treatment to Black Hamburgh, but being a strong grower requires ample space, and fruits better in a rather shallow border. The more ripening the berries receive, the richer and sweeter the flavour.

Season.—Late.

Merits.—Third-rate.

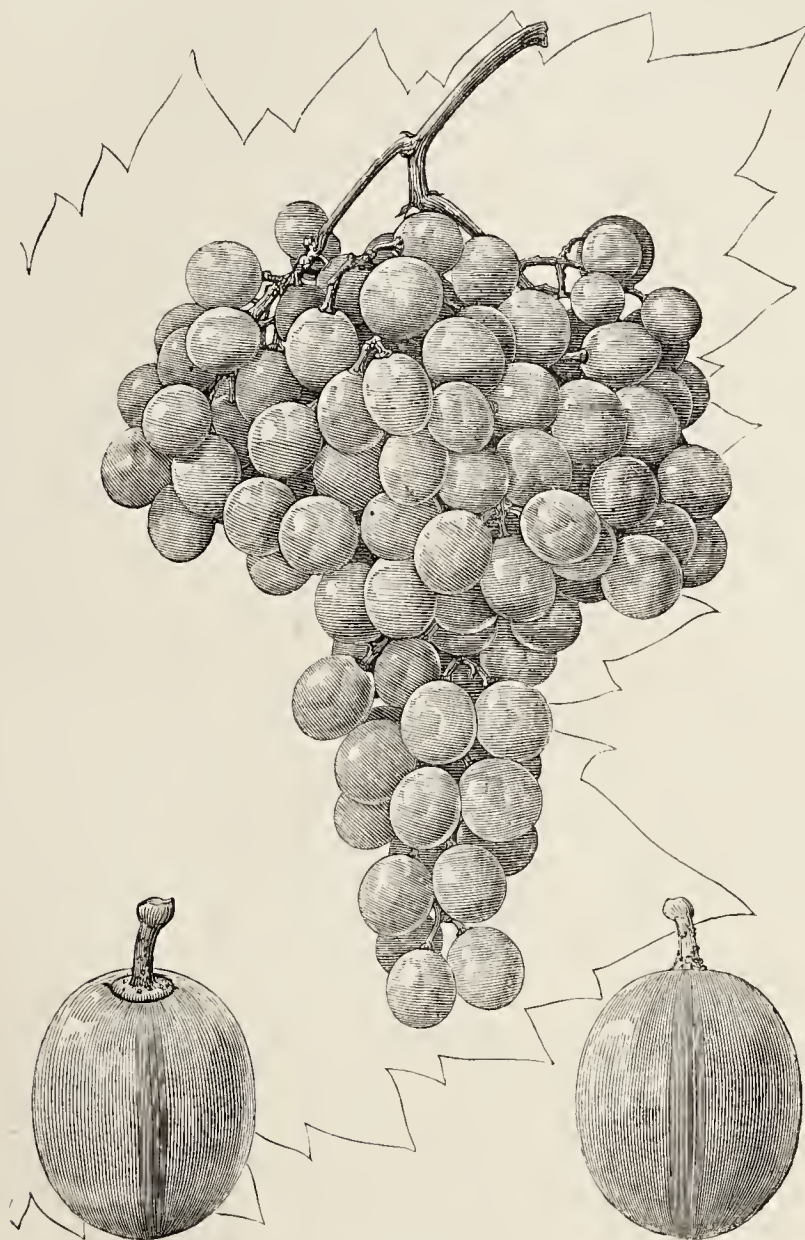
TOKAI DES JARDINS (41).—A round grizzly Sweetwater Grape.

Vine.—Growth free but slender; young shoots small, brownish, ripening freely; very fruitful.

TOTTENHAM PARK MUSCAT.—A synonym of Muscat of Alexandria: which see.

TREBBIANO (91).—An oval white Vinous Grape.

Vine.—Growth remarkably strong and robust, the young shoots being very thick, almost gross, but ripening freely, and generally coated with down around the buds, which are large and prominent; moderately fruitful. *Leaves* large, soft, and much



TREBBIANO.

Fruit.—*Bunches* medium-sized, tapering, the smaller ones cylindrical, compact; closely set. *Berries* small, round, of a dull grizzly colour. In all other respects resembling Royal Muscadine.

History, &c.—Received from André Leroy of Angers; fruited at Chiswick.

Cultural Notes.—Requires the same treatment as Royal Muscadine.

Season.—Early.

Merits.—Third-rate.

covered on the under surface with thick down; deeply toothed; dying off pale yellow.

Fruit.—*Bunches* of the very largest size, with broad, strong shoulders, and thick stalks, compact, and always well set. *Berries* medium-sized, roundish-ovate, on stout stalks. *Skin* greenish-yellow, changing to pale amber when well ripened, tough or thick. *Flesh* firm, yet juicy, sweet, and pleasant, but lacking richness, excepting when very highly ripened. Handsome.

History, &c.—The origin or introduction of this well-known grape is unknown to me. It is largely grown for late work. Some of the finest examples I remember to have seen were grown by the late Mr. Drewett, when gardener to Mrs. Hope at the Denbies, Dorking, Surrey; hence it was by some termed the Denbies Trebbiano. Mr. Curror, of Eskbank, exhibited at Edinburgh in 1875 a bunch of this grape weighing 26 lb. 4 oz., which is the largest bunch of grapes on record.

Cultural Notes, &c.—Being of strong growth this grape requires considerable space to develop properly; and although it fruits freely in a Hamburg house it well repays by its superior quality treatment very similar to that given to Muscats. Mr. Gilbert, of Burghley, who is one of the best of cultivators of the Trebbiano we know, gives plenty of time, and plenty of heat to ripen it thoroughly, when the berries keep sound into March and April, and are then very rich.

Season.—Late.

Merits.—Second-rate in quality, but valuable for its handsome appearance and late keeping properties.

TRENTHAM BLACK (5).—An oval black Sweetwater Grape. *Synonyms:* Fleming's Prince; Long noir d'Espagne.

Vine.—Growth strong and free, the young shoots rather long-jointed; moderately fruitful. *Leaves* large, deep green, with reddish stalks; rugose, very deeply lobed and toothed; dies off reddish.

Fruit.—*Bunches* long, loose or straggling; broadly shouldered, almost always very badly set. *Berries* large or above medium size, on stout stalks, long ovate. *Skin* thin, densely black, and covered with a thick bloom, remarkably beautiful. *Flesh* extremely delicate, juicy, very rich and sweet. A grape of excellent flavour.

History, &c.—The late Mr. Fleming, of Trentham, was the first to draw attention to this grape. He exhibited it, in the first instance, to the Horticultural Society as Fleming's Prince, which name was subsequently altered to Trentham Black. M. Leroy, of Angers, sent it to the Horticultural Society, Chiswick, as Long noir d'Espagne.

Cultural Notes.—Will succeed and ripen very well under the same conditions as the Black Hamburg, but requires great care in setting. The berries are somewhat liable to crack and decay.

Season.—Mid-season, or for immediate use after ripening.

Merits.—In quality first-class, but so uncertain as to be scarcely worth growing.

TROVÉREN FRONTIGNAN (69).—A round white Muscat Grape. *Synonym:* Muscat Trovère.

Vine.—Growth moderately robust, the wood always ripening well; fruitful. *Leaves* large, roundish, deeply toothed, somewhat rugose.

Fruit.—*Bunches* rather long or cylindrical, very compact, on rather long strong stalks, well and closely set. *Berries* nearly medium-sized, round, on stout footstalks. *Skin* tough, with this peculiarity, that in the major portion of the berries it is of a clear greenish yellow colour, while berries here and there are of a deep amber, or even a little coloured, the flavour of the latter being much richer and sweeter; it is, however, somewhat dull and dirty in appearance. *Flesh* firm, crackling, yet juicy and rich, with a strong Muscat flavour.

History, &c.—My first acquaintance with this grape was made in the nursery of Mr. Standish, of Apsot. It is of Continental origin, and is grown at Chiswick.

Cultural Notes.—Requires a warm house to ripen

the fruit thoroughly. The more heat that is applied the higher the flavour, and the more unsightly the colour. It will fruit fairly well in an ordinary vinery.

Season.—General; does not keep very long.

Merits.—Altogether first-class in quality, but scarcely worthy of cultivation.

—A. F. BARRON.

THE DOUBLE DWARF SCABIOUS

FOR AUTUMN AND WINTER FLOWERING.

COMMON things are too often passed over, if not despised, even in decorative gardening, when they are really most desirable. A case in point occurred at the meeting of the Royal Horticultural Society, when Mr. Roberts, of Gunnersbury Park Gardens, exhibited some admirably grown and nicely flowered examples of Double Dwarf Scabious, grown in pots for decorative uses, and of which some account was given about the same time in the *Gardeners' Chronicle* (N.S., xvi., 726). We are indebted to the Continental florists for this useful dwarf strain of Scabious, and now we have had demonstration of its great usefulness for pot culture, for the plants above referred to were an ample and complete vindication of its usefulness for the object sought to be attained, namely, securing a supply of flowers during the late autumn and winter months.

The seed should be sown about the middle of July. From the crop of seedlings the best and strongest are to be selected, and placed first in 3-in., then in 6-in., and eventually in 7-in. pots; and being treated to good soil and well looked after, they grow into bushy specimens, and at the blooming period throw up successionally a large number of flowers. There is no "coddling" about their treatment, this being a thing which those who attempt to grow these Scabious in pots should carefully avoid. During the summer the pots are plunged out-of-doors in a bed of cocoa-fibre or some such material, and at all times, but especially in dry weather, they are well looked after in the matter of watering. The plants are not housed till some protection is necessary; and unless it is desired to expand some of the flowers quickly, it is not wise to give them a strong heat. A house from which frost is excluded is sufficient in mild open weather, but during frost or in cold rainy weather a little fire-heat is necessary.

One characteristic of the dwarf Scabious is especially noticeable—that of throwing up successional flowers in great abundance. On some plants above referred to there were flowers much finer than we have seen in the open ground, showing that careful culture does much good in the way of developing fine blooms even of common things.—T. MOORE.

DIANTHUS CHINENSIS.

HERE is a pretty group of annual Dianthus comprehended under the name of *D. chinensis*, that are remarkably well adapted for small gardens, and particularly for those of amateurs and other gardeners who grow flowers in quantities to put from. The double red and double white varieties are excellent for this purpose, and they come true from seed. To do them full justice, the seed should be sown in the open ground early in March, on a sunny spot, and in rich light soil. The seed needs to be scattered thinly in drills, and even then it will be necessary to thin out the plants to at least four inches apart. This enables them to branch out somewhat freely, and by cutting flowers from them the plants are encouraged to put forth more. The plants will continue in bloom till quite late in the autumn.—R. DEAN.

STRIPED-FLOWERED ROSES.

IN a recent number of the *Journal des Roses* (v. 177), we find a report on the varieties of Rose which produce striped flowers. It had been communicated to the Horticultural Society of Châlons-sur-Saône, by one of its members, M. Myard fils, an amateur cultivator of that place. M. Myard remarks that the varieties of the Rose which produce striped flowers, are, in part at least, of the nature of graft-hybrids, being produced by the fusion of the sap in cases where one kind of Rose has been grafted or budded on another; and, that when a rose-tree produces a flower which is different from the parent, it is desirable that the new variety should be fixed, to which end, care must be taken to select the best formed eyes nearest to the sport, and not to delay the operation of budding.

M. Myard then gives the names of the principal striped roses already known, with an indication of their relationship, and a description of their characteristics, as follows:—

AMERICAN BANNER; syn. *Drapeau Américain*: a Tea rose, the flowers striped very distinctly with red and white; obtained by Mr. Geo. Cartwright, of Dedham, in America, as a sport from the Tea rose Bon Silène.

CEILLET FLAMAND: a Bourbon, with flowers of medium size, bright rose, flecked and

striated with pure white; a variety worthy of cultivation.

MADAME CORNELISSEN: a Bourbon, with large fleshy white flowers, streaked with rose; the flowers of this variety, a fixed sport from Souvenir de la Malmaison, are not always well developed.

BARONNE PRÉVOST MARBRÉE (Louis Van Houtte): a Hybrid Perpetual, with large bright rose flowers, veined with carmine; a fixed sport from Baronne Prévost.

BELLE ANGEVINE: a Hybrid Perpetual, with the flowers medium-sized, full, white, streaked with rose and lilac.

BELLE DU PRINTEMPS; syn. *Aleindor de Vignerot*: a Hybrid Perpetual, obtained by M. Schmidt, of Lyons, as a sport from Duchesse de Cambacérès; the flowers are large, rose, boldly veined with carmine.

DUCHESSE DE MORNAY PANACHÉE: a Hybrid Perpetual, the flowers large, rose, carmine-veined; a fixed sport from Duchesse de Mornay.

LA PLUS BELLE DES PANACHÉES: a Hybrid Perpetual, with large, lively rose-coloured flowers, veined with carmine; a fixed sport from Souvenir de la Reine d'Angleterre.

MADAME CAMPBELL D'ISLAY (Schneider); syn. *Triomphe de Valenciennes*: a Hybrid Perpetual, with large very full flowers, very pale rose veined with carmine; a fixed sport from La Reine.

MADAME DÉSIRÉE GIRAUD: a Hybrid Perpetual, with flowers of large size, full, white, streaked with rose; the blooms of this variety, a fixed sport from Baronne Prévost, are not always well developed.

PANACHÉE D'ANGERS (Moreau): a Hybrid Perpetual Provins, with flowers of medium size, full, bright rose, streaked and marbled with purple and deep violet; this variety, which is a desirable one to cultivate, and which was secured after ten years' culture, was a sport from Commandant Beaurepaire.

PANACHÉE D'ORLÉANS: a Hybrid Perpetual, with flesh-coloured flowers, streaked with bright rose; this variety, obtained by M. Dauvesse, deserves to be cultivated, as it continues to bloom freely, and the flowers are of large size.

PANACHÉE DE LUXEMBOURG: a Hybrid Perpetual, with medium-sized full double flowers, of a violet purple colour striated and

flecked with salmony rose, very floriferous ; a fixed sport from Docteur Arnal.

PANACHÉE LANGROISE (Rimaucourt) : a Hybrid Perpetual, the flowers of which are large, full, cherry-red, strongly veined with deep carmine, and marbled with rose ; a variety well worthy of cultivation ; a fixed sport from Jules Margottin.

TRIOMPHE D'AMIENS (Mille-Mullet) : a Hybrid Perpetual, with large, very bright rosy-carmine red flowers, regularly veined with bright red ; it is a very desirable variety to cultivate ; and originated from Général Jacqueminot, as a sport which was subsequently fixed.

PURPLE SPROUTING BROCCOLI.

HERE is one of the oldest as well as one of the very best vegetables for winter and early spring use. There is nothing equal to it in point of quality at the present time ; its fine flavour and tender marrowy texture renders it agreeable to the most fastidious palate. Some persons object to it on account of its purplish colour, but this is mere caprice or fancy. It is the hardiest of all Broccolis, indeed almost the hardiest of all the Brassica tribe. There is rarely a season in which it is injured at all. It will grow anywhere—in the poorest of soils, or under the shade of fruit-trees, and does not require planting until the end of July, as it makes its growth late in autumn. It comes into use about Christmas, and continues in use until March. We have had a constant supply here for the past six weeks.—A. F. BARRON, *Chiswick*.

LATHYRUS AZUREUS.

IF this beautiful annual Pea were only fragrant, like the Sweet Pea, it would be found much oftener in gardens. The wonder is, notwithstanding its defect of want of fragrance, it is not now oftener seen. I think gardeners of all classes can scarcely be aware that a simple annual of such a lovely blue colour really exists, or else it would be much more grown. It is so easily managed. The treatment given to the Sweet Peas suits it well, and plants throw up many very pretty blossoms, that make a charming button-hole. The hue of blue is that we denominate azure,

and I know of no hardy flower that can approach it for its peculiar hue of colour.

A few years ago I was at a suburban flower show, when a gentleman came into one of the tents, wearing in his coat some blossoms of this lovely Pea. They excited considerable attention, and he said he had raised it from seed received from a friend, who had them direct from Abyssinia. Strange to say, no one appeared to know it. I at once said it was *Lathyrus azureus*, but my opinion was discredited, and it was not until I had obtained some seeds, grew plants and flowered them, that my statement was received. I have often wondered this Pea has not been re-introduced as a novelty ; but perhaps that honour is in store for it at no distant date.—R. DEAN.

* * The plant referred to is the old *Lathyrus sativus*, seldom seen in modern gardens, and very little known to modern gardeners.—ED.

NOTES ON THE AURICULA AND POLYANTHUS.

WITH the advent of the month of February fanciers of these beautiful spring flowers must be on the alert, to watch the progress of their plants from day to day, and to give them the necessary attention. The Auriculas require to be thus seen to very early in the month. Indeed, in such an early season as the present, they should be surface-dressed before the first day of the month ; at least no delay should take place after that. A portion of the surface soil in the pots should be removed, say to the depth of an inch, less or more, and this should be replaced with good sandy loam, and some rotten manure, about three parts of the former to one of the latter. After this has been done, the plants will require very much more attention than they have received hitherto. At night, when there is danger of frost, mats must be placed over the glass, as it will do the trusses harm to be exposed to a temperature below the freezing point. The plants must not be allowed to suffer for want of water at the roots, as this will be likely to check the development of the flower-buds.

The seedling pots or pans will also require attention, as now the young plants will be

appearing freely where the seeds have lain dormant in the soil from August until now. The tiny plants should be pricked off as soon as they are large enough, and that is when the first true leaf is well formed. I like to prick out a dozen plants in a small pot, and when the leaves have met together they are again potted off, three plants in one of these small pots. The next potting they will again be divided out, and one plant will be potted in the same sized pot.

Last season's seedlings will require the same treatment as the named plants. Any plants of the Alpine and show section out of doors, and planted in suitable positions, will do very well if they are frequently looked over, the withered leaves removed, and a surfacing of good loam should also be pressed firmly around their stems.

The Polyanthus requires very similar treatment to the Auricula, and we surface-dress them at the same time as we do the Auricula. They start into growth and bloom rather earlier than the Auriculas, and I do not find that they are so readily injured by frost. The varieties of the gold-laced Polyanthus are not so numerous as those of the Auricula, nor are there nearly so many raisers of them; but Mr. Barlow, of Stakehill House, Manchester, has taken up with some spirit the intercrossing and raising of seedlings, and we are now likely, in the course of a few years, to get up to where we were about fifty years ago. We are thankful for his beautiful variety *Sunrise*, recently so well figured in the *FLORIST AND POMOLOGIST*; it is far superior to *Lancer*, and will well replace *Kingfisher*, probably now lost to cultivation. *Criterion* too will be a notable addition to the dark-ground varieties, amongst which a well-bloomed *Cheshire Favourite* has hitherto held the highest place. *John Bright* is also a good flower. Mr. Barlow's time is very much taken up, but he must manage to raise us some more Polyanthuses as good as those he exhibited in London. Of the Fancy Polyanthuses the varieties raised by Mr. R. Dean are the best, and should be grown in every garden. The best way to get a good bloom of these pretty mottled varieties is to sow a packet of good seeds in April and grow them on during the summer and winter in the open borders, where they will flower well in April. They like rich moderately clayey loam.—J. DOUGLAS, *Loxford Hall, Ilford*.

THE GRENADIN CARNATION.

THIS new addition to the *Dianthus* family is likely to prove a valuable acquisition for the ornamentation of conservatories and winter show-houses, by reason of its free-flowering habit, and from the facility with which it may be managed. A packet of seeds was obtained last January from the seedsman, and this was sown, and placed in heat about the end of February. A goodly number of the seeds vegetated and came into growth pretty freely. As soon as considered large enough they were potted off into small pots singly, and kept in a cold frame afterwards, until they had become strong established plants, well rooted in their pots, when they were planted out-doors in prepared ground for the following season's flowering. Seeing, however, that they were nearly all throwing up their flower stems early in November, I had them taken up, potted, and placed under glass, when they very soon commenced growing and began to open their flowers.

A few of the most forward of the plants were put into a gentle heat, which they seem to have found suited to their requirements, as they have continued to expand their blossoms freely. Some of them are nicely scented. There are various shades of colour from scarlet to white; and although some of them are only semi-double, or single, still from their dwarf and stocky habit they are all pretty and interesting at this dull season of the year.

Last summer was a dull and sunless one, and it is very probable that in one more favourable as to sunshine and heat, they would be found to come still earlier into flower. At all events, they are very useful and acceptable as winter flowers, and are worthy of a little extra care and attention.—J. WEBSTER, *Gordon Castle Gardens*.

WEEPING ELMS.

OF Weeping Elms there are several which deserve attention. The American Elm is one of the most noble and stately of weeping trees. It is well known, but it may be proper to remark that it is not admissible on small lawns.

The most popular of Weeping Elms is the CAMPERDOWN, a very picturesque and elegant tree, which can be employed with the most satisfactory results in extensive grounds, as well as in small garden-plots. It is of rank growth, the shoots often making a zigzag growth outward and downward of several feet in a single season. The leaves are large, dark green and glossy, and cover the tree with a luxuriant mass of verdure. By a judicious use of the knife, it can be kept very regular and symmetrical in form, and a handsome specimen, isolated on the lawn, will always arrest attention and elicit admiration.

The SCOTCH WEEPING ELM (*Ulmus montana pendula*) is a drooping variety, resembling the Camperdown, but not so good.

The ROUGH-LEAVED WEEPING ELM (*Ulmus rugosa pendula*) is a pendulous variety, with large rough leaves, and *Ulmus viminalis* is a distinct, slender-branched variety, very ornamental in habit and foliage.—W. C. BARRY, Rochester, New York, U.S.A.

ORCHID NOTES.

I OBSERVE in the current number of *The Gardener* a note by F.W.B. in regard to *Odontoglossum Alexandra*, that just forestalls what I had written to send to you about the same matter, namely, the falling off in the varieties now sold under the name of *O. Alexandra* or *O. crispum*, as compared with those sold, even say ten years ago. I bought two years since a lot of 100 *O. Alexandra* from a large importer of Orchids, and out of that lot about seventy or so have flowered, and there is only one I would call a true *O. Alexandra*. The rest are made up of *O. Lindleyanum* one plant, *O. Andersonianum* two plants, and a lot not worth a name at all, small flowers, some spotted, and others pure white, very pretty in their way, but not *O. Alexandra*. I think F.W.B.'s friend is right in his surmises, as my experience tends in the same direction as his.

I have the first *O. Alexandra* I bought still to the fore, and for size of flower and substance it has not yet been equalled by any I have got since, and I have some hundreds.

The enormous quantities that are sold every year, not only in this country but in America as well, must tell a tale on the numbers to be

found in its native habitats. The plant will no doubt be more difficult to procure every year, and will require a longer journey. A large importer once told me in regard to this very subject, "What we used to go two days journey for now takes ten or twelve."

I am of opinion that many orchid growers give their *Odontoglossums* too little root room. They are essentially surface rooters, so to speak, and I find they do best in shallow perforated pans, each plant of course raised above the edge of the pan. I much prefer a six or seven inch pan to the same size of pot. I put about an inch and a half of nicely sorted crocks in the bottom of the pan, and then fill up with the potting material, putting the plant on a slight mound in the centre. I prefer crocks to charcoal, at least to too much of it, as it retains the moisture, and is more liable to rot the roots than clean crocks are.

Maxillaria grandiflora should be in every collection of Cool Orchids. I have it in full bloom just now, and its large waxy-looking flowers contrast so well with its bright green leaves. The coolest part of an *Odontoglossum*-house suits it best. It is a very free grower, and the fact of its flowering at this time of the year makes it doubly useful.—N. B.

POINSETTIA CULTURE.*

NEARLY two hundred plants of the *Poinsettia pulcherrima* are grown at Mauldslee Castle Gardens each season, and that with very little accommodation. The plants are kept during the winter beneath the staging or at the back of a pit, where there is a temperature of from 50° to 60°. Towards the end of March or beginning of April, they are shaken clean out of the pots, most of the roots are cut away, and the stem cut down to the eye next the old wood; they are then placed in boxes, properly drained, and filled with river-sand, and removed to a Melon pit, where there is a night temperature of 65° or 70°. As soon as the eyes have started a few inches, they are potted into 4-in. or 5-in. pots, according to the size of the plants, using good fibry loam, with plenty of river-sand and some leaf-mould, and then plunged in a moderate bottom-heat, in the propagating-

* Abridged from a Paper read at the meeting of the Scottish Horticultural Association, August 2nd, 1881.



Plums:

1, Late Diamond. 2, Reine Claude du Comte Hathem.

house, or in any available place with stove temperature. They are shaded from the mid-day sun, and syringed morning and afternoon, to keep down insects. By the second week of June, they require a shift into a 6-in. or 7-in. pot, and to be placed in a house where there is plenty of head-room. About the beginning of July, we try, if possible, to keep them a little cooler, so as to harden the tops previous to their being taken for cuttings about the third week in July. These cuttings are inserted singly in 3-in. pots, using two parts river-sand and one part leaf-mould, and are then plunged into a hot-bed, with bottom-heat from 80° to 90°. The frames are kept closely shaded with double mats until the leaves begin to lose the yellow tinge they assume after being taken from the parent stock. With this treatment 98 per cent. will be rooted in a fortnight, when more air and less shade must be given.

The next process is to shift them into 5-in. pots and place them in Melou pits (well fumigated) from which the crop has been cleared. The atmosphere must be kept humid by syringing gently every afternoon, and a night temperature of 65° maintained, going up to 75° or 80° during the day, shading carefully for a time, then gradually withdrawing it altogether. As the roots increase, the plants are shifted into 6-in. and 7-in. pots, or if larger plants are wished, a few are potted into 10-in. pots. Sometimes several plants, say five, are put into a 10-in. pot; these, when in flower, have a fine effect among other plants in the stove. For general work, however, plants in 6-in. and 7-in. pots are the most useful. When they are required to be in flower early, they must be placed in the forcing-house in November, as near the glass as possible; they will stand a high forcing temperature, provided they are well set. Feeding with liquid manure composed of sheep-droppings, with a little guano and soot, is highly advisable.

The second crop of cuttings, taken off in August, treated similarly to the first batch, and flowered in 4-in. and 5-in. pots, come in very useful, the bracts, of course, being much smaller, though none the less brilliant. In regard to watering, there are few plants more impatient of this being carelessly done; if too much is given, or the water is too cold, the plants soon lose the points of their fleshy rootlets, when the leaves turn yellow and drop off; if it is given too sparingly, thrips and red-spider soon spoil the plant, as the leaves will not bear sponging without injury.

The old variety is the most useful sort. The only point in favour of the double variety is that it stands much longer in flower, and thereby extends the season of flowering into March and April. The white variety is equally

easy to grow, but more inclined to be leggy than the others.—W. H. GORRIE, *Mauldslee Castle Gardens.*

CHOICE NEW PLUMS.

[PLATE 556.]

FRUIT-GROWERS are much indebted to Mr. Rivers for his unceasing efforts to improve the quality and extend the season of our choicer hardy fruits.

We have had the pleasure of recording many instances of his successful efforts as a raiser of early and late varieties of Peaches, Nectarines, and Plums, which have held their own on the score of quality, and served to prolong by a considerable period the season of these several fruits. Nor has his efforts been unavailing in the introduction of first-class novelties from other sources. We have now to submit to our readers portraits of two valuable Plums, of which Mr. Rivers has favoured us with the following particulars:—

Fig. 1. THE ARCHDUKE (*inscribed LATE DIAMOND on the plate, the name having been changed since our figures were printed off*).—It is rather remarkable that this Plum, which does not ripen until the 8th or 10th of October, should derive its origin from the very early Plum De Montfort. It has been in the nursery for many years, and has proved to be a very valuable sort, good either for the table or kitchen; indeed as a preserve it is one of the most delicious confitures, having almost a flavour of guava jelly. The fruit is as large as the Diamond; the tree hardy and a good grower, producing abundance of fruit. For the last few years the trees have been most picturesque at a time when most orchard trees are stripped of their produce.

Fig. 2. REINE CLAUDE DU COMTE HATHEN.—A very delicious purple Gage Plum, of large size, an abundant bearer, and as the plate shows, a very handsome fruit. This is, I believe, of Hungarian origin, but it does not appear to be generally known. I was very much struck with the appearance of the trees when covered with fruit, and think it is likely to prove a popular variety when well known, as it deserves to be. The tree is of sturdy growth, and makes a good orchard standard. On a wall or as an espalier the fruit is very fine.—T. FRANCIS RIVERS.

REGISTER OF NOVELTIES.

NEW PLANTS.

ASTER NOVÆ ANGLIÆ PULCHELLUS.—A very fine variety quite distinct from the ordinary form, and far handsomer; grows about 4 feet high, the flowers of a pale magenta.—T. S. Ware.

ASTRAGALUS ADSURGENS, Pall.—One of the showiest of the Astragali; grows about a foot high, and is smothered with beautiful carmine-violet flowers; a very pleasing and valuable acquisition for rockwork or borders.—T. S. Ware.

ATHYRIUM FILIX-FEMINA VELUTINUM, Stansf.—A beautiful dwarf densely ramose form of Lady fern, dwarfer than its parent *A. F. f. acrocladon*, as well as closer and more compact in habit; this and the finely divided apices give the plant the appearance of a ball of green velvet.—F. W. and H. Stansfield.

BERTOLONIA ÆNEA, Hort. Bull.—A dwarf stove shrub with ornamental foliage, the leaves close set on a short stem cordate-ovate, seven-ribbed, fringed with hairs, olive-green with a silvery central bar, the younger ones of a coppery hue, the surface scattered over with papillæ, each being a hair; a garden hybrid.—W. Bull.

BOMAREA SHUTTLEWORTHII, Masters.—A handsome climbing *Alströméria* from Columbia. It has a horizontal rhizome producing stout roots which bear oblong-ovoid tubers, ovate-lanceolate leaves, and umbellate pendulous cymes of funnel-shaped flowers, $2\frac{1}{2}$ inches long, with orange red outer and yellow inner segments, all spotted near the tip and equal in length.—Shuttleworth, Carder & Co.

CALENDULA OFFICINALIS OCHROLEUCA.—A new and distinct variety of the old double Marigold, of hardy and vigorous habit, and flowering abundantly, the flower-heads being fully double and of a yellowish-white colour.—Vilmorin-Andrieux & Cie.

CALOCHORTUS BENTHAMII, Baker.—A very dwarf and compact-growing species, recently introduced from California, and perfectly hardy; the flowers are golden yellow with a black centre and beautifully bearded.—T. S. Ware.

COLCHICUM MONTANUM, Linneus.—A pretty dwarf-growing bulb, from Smyrna, and the Mediterranean region. It has short fleshy linear-lanceolate leaves like those of *Scilla bifolia*, and 1—4 small crocus-like flowers, with a long pallid tube to the perianth, which has oblong concave segments of a pleasing bluish-lilac colour; introduced mixed with *Chionodoxa*.—H. Harpur-Crewe.

COLUMNEA KALBREYERANA, Hort. Veitch.—A very remarkable stove gesneraceous plant from New Grenada. It is of low shrubby habit, the thick fleshy stems closely set with distichous oblong-acute leaves, a foot long or more, and two or three inches broad, oblique at the base, glabrous, creamy orange beneath; the yellow flowers are borne in short racemes below the leaves, the yellow calyx being nearly two inches long; Botanical Certificate R.H.S., January, 1882.—Veitch & Sons.

DAVALIA FIJIENSIS PLUMOSA.—Perhaps the most charming of all ferns. *D. fijiensis*, as its name implies, is a Fiji plant—an evergreen stove fern, of which several forms have been introduced. The fronds in all cases are large and spreading, cut into multitudinous very narrow segments, and rising some 2 or 3 feet on smooth petioles from a thickish rhizome; but in this variety they are extremely narrow, and all the parts of the frond have a specially graceful drooping plummy appearance; 1st-class Certificate R.H.S., November, 1881.—W. Bull.

DAVALIA LORRAINEI, Hance.—A very elegant stove evergreen fern in the way of *D. dissecta*, with a pale tawny freely creeping slender rhizome, and finely divided triangular fronds nearly a foot broad

and long, having the apex and pinnae much attenuated; it will form a fine basket fern; 1st-class Certificate R.H.S., July, 1881.—W. Bull.

ERICA HYEMALIS ALBA, Hort.—A new variety, differing only from the species in its colour, which is pure white; it is an excellent companion, but increased valuable on account of the purity of its blossoms; 1st-class Certificate R.H.S., January, 1882.—F. R. Kinghorn.

EUCALYPTUS FICIFOLIA, F. Muell.—A beautiful greenhouse evergreen shrub of moderate but free growth, with ovate or ovate-lanceolate leaves containing an essential oil valuable as a febrifuge, and producing, while the plants are of manageable size, a profusion of trusses of beautiful crimson flowers.—W. Bull.

HESPEROCALLIS UNDULATA, A. Gray.—A Californian Liliaceous plant allied to *Heimerocallis*, with long lance-shaped undulated leaves, broadly edged with white, and loose racemes of sweet-scented whitish flowers, which are produced in February or March.—T. S. Ware.

IANTHE BUGULIFOLIA, Griseb.—A hardy perennial, allied to *Verbascum*, though distinct, with long-stalked oval radical leaves, and erect flower-spikes about two feet high, bearing curious bee-shaped flowers, which are yellow, with the filaments clothed with dark purple hairs; altogether it is a very interesting plant.—T. S. Ware.

LÆLIA ANCEPS VEITCHII, Hort.—A beautiful sport from *L. anceps*; the large flowers have four white sepals and petals, the lip is distinctly coloured, the lower half golden yellow, the upper part white, pencilled with rich bluish-purple; 1st-class Certificate R.H.S., Jan., 1882.—Veitch & Sons.

LINARIA MAROCCANA HYBRIDA.—A very pretty annual, one foot high, with slender upright branches, and terminal spikes of flowers, which vary from rose to red and from lilac to violet, the lower petal being usually white.—Vilmorin-Andrieux & Cie.

ODONTOGLOSSUM VEXILLARIUM RUBELLUM, Hort. Bull.—A very beautiful variety of this charming orchid, which appears to have the property of blooming in autumn; it is, at least, a distinct form, having the pseudobulbs blunter and the leaves broader than usual, while the large-sized flowers are similar in colouring, bright rose uniformly marked with three crimson lines at the base of the lip; 1st-class Certificate R.H.S., October, 1881.—W. Bull.

PANAX ELEGANS, Hort.—An elegant warm greenhouse shrub from Queensland, with erect stem, and evergreen leaves pinnate at the apex and bipinnate at the base; as the plants gain age the leaves become more distinctly bipinnate; the leaflets are about 3 in. long, smaller in the more divided parts.—W. Bull.

PENTSTEMON COBÆA PURPUREA.—A charming variety of the well-known *P. Cobæa*, having the flowers much larger, and of a rich purple colour, sparingly shaded with violet; it grows $3\frac{1}{2}$ —4 feet high, and when established will produce 4—6 spikes of flowers; one of the choicest of border plants.—T. S. Ware.

PHALÆNOPSIS STUARTIANA, Rehb. fl.—A splendid stove epiphyte, from Borneo, with large white blossoms like those of *P. amabilis*, but having the lower half of the lateral sepals and the lip yellow spotted with crimson. Two varieties have been already separated: *P. S. nobilis*, which has the parts of the flower longer, and the callus of the lip orange-coloured; and *P. S. punctatissima*, which has the upper sepal, petals, and upper and inner side of the lateral sepals dotted with small mauve spots.—Low & Co.

SCABIOSA ATROPURPUREA FL.-PLENO.—A new double variety of this handsome ornamental annual, with double purple and white flowers, beautiful and distinct in colour.—Vilmorin-Andrieux & Cie.

NEW FLOWERS.

AMARYLLIS, *Autumn Beauty*.—A hybrid raised between *A. reticulata* and one of the large-flowered varieties; the blossoms are large, finely formed, of a pale rosy pink colour, reticulated with pink of a deeper shade; it promises to make a fine winter-flowering plant; 1st-class Certificate R.H.S., January, 1882.—Veitch & Sons.

BEGONIA, *Reading Snowflake*.—This is one of the fibrous-rooted winter-flowering type, and produces large and well-formed pure white flowers, twice the size of those of *B. semperflorens*, of which it is a seedling; the foliage is bold and of a shining pale green colour.—Sutton & Sons.

Of the Tuberous-rooted group we have:—*Meteor*: a novel and attractive variety, with flowers of a bright orange colour in the centre, changing to a reddish orange tint, with a darker hue of colour on the margin; of dwarf habit, hence well adapted for bedding and pot culture.—Sutton & Sons. *Reading Beauty*: a variety with the foliage similar to *B. Pearcei*, producing large and handsome creamy white flowers, which become of a lighter tint as they develop; makes a very pretty pot plant.—Sutton & Sons. *Davisi flore-pleno superba*: a beautiful dwarf double-flowered sort, with large bright crimson red flowers, 2½ inches across, forming a perfect rosette of petals; 1st-class Certificate R.H.S.—Laing & Co.

CARNATIONS.—*Duke of Grafton*, S.B., large and full, extra.—H. Hooper. *Rev. J. T. Boscawen*, C.B., occasionally P.P.B., fine full-size, smooth and brightly marked.—H. Hooper. *Sir Frederick Roberts*: yellow ground, with bright crimson stripes, quite a novelty.—H. Hooper.

Of Tree Carnations:—*George Rudd*: crimson flake, smooth, bright and well-marked, very distinct and desirable.—H. Hooper. *Mrs. Moore*: scarlet striped with crimson, large and full, a profuse bloomer, extra.—H. Hooper. *Pride of Bath*: large pure white self, good petal, profuse bloomer.—H. Hooper. *Star of Bath*: light rose flake, smooth, free blooming.—H. Hooper. *Victory of Bath*: large purple flake, very smooth and well-marked, equal to a show-flower.—H. Hooper.

Of Cloves:—*Gaiety*: a bright scarlet self, large and full, smooth, extra.—H. Hooper.

CHRYSANTHEMUM (*Japanese*), *Lady Selborne*.—A sport from James Salter obtained by Mr. C. Salter, quite like the parent in form and size, but having the florets pure white. One of the best whites yet obtained; 1st-class Certificate R.H.S., November, 1881.—James.

CYCLAMEN, *Reading Gem*.—A dwarf sort with round marbled foliage, the flowers large, well-formed, with broad white segments having a rosy-purple base; 1st-class Certificate R.H.S., Jan., 1879—Sutton & Sons.

DAHLIA, *Double Floret*.—A curious variety presenting the entirely novel character of developing a small floret in the cup of each larger one; this carried out through the whole flower, which is a deep crimson red; 1st-class Certificate at Exeter.—Hender & Sons.

FUCHSIA EDELWEIS.—One of the finest of the double whites, of dwarf free-flowering habit, so free that from four to six flowers are often produced at a joint; tube short and with the sepals carmine-scarlet, the corolla very double, pure white; buds large, almost globose; 1st-class Certificate at Royal Western Hort. Exhibition.—Hender & Sons.

GLADIOLUS.—The following new sorts, all of which have gained 1st-class Certificates, are announced:—*Anthony Waterer*, scarlet with the lower segments feathered, R.H.S.; *Aquilius*, rosy crimson with dark streaks, R.H.S.; *Cherub*, buff with crimson feather, R.H.S.; *Cleogenus*, white shaded with purple with violet stripes, Plymouth; *Emma*, lavender flaked with purple, Bath; *Epictetus*, purple veined with crimson,

Exeter; *Henry Irving*, yellowish bronze veined with red, Manchester; *Hobart Pasha*, rosy carmine with crimson stripe, Shepton Mallet; *Joseph Broome*, magenta suffused rose, and lighted with white, Manchester; *Lord Burleigh*, salmon veined with crimson, Bath; *Lord Newport*, lilac-rose, lower lip white with violet stripe, Shrewsbury; *Mr. Groves*, mauve veined with purple, Shepton Mallet; *Mr. Thornton*, purple-crimson veined with red, Dorchester; *Pilumnus*, white tinged with purple, R.H.S.; *Sir S. Northcote*, red flaked with carmine, Taunton; *The Odalisque*, creamy white with waxy throat, R.H.S.; *Trojan*, mauve, white centre, rose markings, Manchester; *Vicomtesse Glentworth*, rose flaked with purple, Weston-super-Mare.—Kelway & Son.

MIGNONETTE, *Golden Queen*.—A new and distinct variety of dense pyramidal growth, the numerous branches terminating in large spikes of flowers, which have a decided tint of golden yellow, and are very pleasing and attractive.

PICOTEES, *Beauty of Bath*, L.R.—A large full flower, very chaste and pure, free from spots and bars, quite distinct.—H. Hooper.

Of Yellow Picotees:—*Criterion*, bright yellow with crimson edges, large smooth petals, extra.—H. Hooper. *Countess of Pembroke*, very bright yellow, tinged with crimson, large, full, and distinct, extra.—H. Hooper. *Queen of Yellows*, a primrose self, large, full, and distinct.—H. Hooper.

POLYANTHUS (*fancy*) *Buttercup*: a sterling variety of fine form and substance; colour creamy yellow; truss large and bold; a very fine Exhibition variety.—R. Dean. *Cardinal*: rich scarlet crimson, very brilliant in colour, large pip, and bold truss; first-rate for exhibition.—R. Dean.

PRIMULA SINENSIS, *Holborn Gem*.—A very distinct blue-flowered variety—at least of a pale mauve or bluish-lilac tint, and the first advance towards a blue Chinese Primula yet met with; the foliage is of the normal type; the flowers are large, of fine form, borne in good clusters, while the colour is very pleasing; from this variety, aided by careful fertilisation, quite a new race might be made to spring; 1st-class Certificate R.H.S., January, 1882.—Carter & Co. *Pearl*: one of the most distinct white-flowered varieties yet seen; it is very early, the flowers large, beautifully fringed, and the colour snow-white, remaining this colour without any tinge of blush; it is one of the most perfect white Primulas yet raised.—Sutton & Sons. *Princess of Wales*: a very pretty light-coloured form, the flowers being large, well-fringed, and of the most delicate blush or pink, produced in large clusters, which display themselves to the best advantage above a good habit of growth; 1st-class Certificate R.H.S., January, 1882.—Cannell & Sons. *Reading Pink*: a charming novelty introduced last year, and remarkable for its charming soft pink colour, which is yet bright and decided; the yellow eye is clearly defined, and is surrounded with a narrow band of carmine; very hardy, and blooms freely, throwing up quite a pyramid of flowers.—Sutton & Sons. *Rosy Queen*: a handsome fern-leaved variety, producing dense heads of large finely-formed flowers, handsomely fringed, and of a pleasing salmon-pink hue, changing to rose; an early-blooming variety; the foliage being singularly dwarf and compact, as well as elegant, it makes a very pretty table plant.—Sutton & Sons.

SUNFLOWER, *Hunter's Improved*.—A variety of this popular annual, with the flower-heads very large, measuring 16 to 18 inches across.—Downie & Laird.

SWEET WILLIAM, *Campbell's Superb*.—A fine auricula-eyed strain, selected by Mr. Campbell of Dunoon; the colours are bright and well-displayed, and the pips large and finely-formed, with very smooth edges.—Downie & Laird.

TROPEOLUM, Mrs. Ellice.—A dwarf bedding variety of compact growth raised by Mr. Peebles, gardener to Mrs. Ellice, Invergarry; very dark scarlet, out-doors continuing in bloom till cut by frost, as a pot plant all the year.—Downie & Laird.

Of the Climbing Section we have:—*Arthur Veitch*, a finely-formed variety, with rich deep maroon flowers, remarkably free; a first-rate variety.—R. Dean. *Brilliant*, intense crimson scarlet, of very fine form, and highly attractive; a valuable winter-flowering variety.—R. Dean.

VIOLA, Fancy Hybrid.—A new strain of bedding Violas, which have the markings of the fancy pansy combined with the continuous and free-blooming growth of the bedding Violas.—Downie & Laird.

WALLFLOWER, Cloth of Gold.—A splendid early-blooming variety, of good habit, with very large flowers of a pure golden yellow, and frequently measuring more than two inches in diameter; "an immense improvement, invaluable for spring gardening."—Sutton & Sons; Cheal & Sons.

NEW FRUITS.

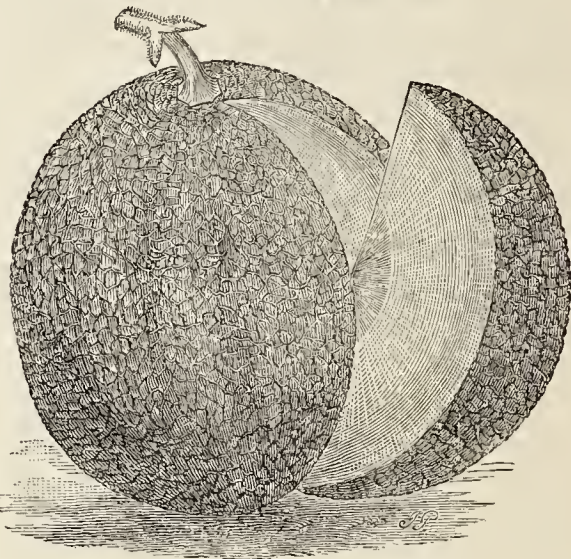
APPLE, Lane's Prince Albert.—This fine fruit has before been noticed by us; but being brought into greater prominence during the past season by the 1st-class Certificate awarded to it by the Fruit Committee of the R.H.S., we again draw attention to it. There is no question that it is one of the very finest kitchen Apples in cultivation, being large, handsome, an extraordinary and certain cropper, and of splendid quality for cooking purposes; it remains long in season, coming into use in October, and keeping fresh until late in spring. It should be grown in every garden.—Lane & Son.

CHERRY, Guigne d'Annonay.—A very fine and remarkably early Cherry, somewhat of the character of the Black Circassian, but much earlier than that variety, and withal of excellent quality; 1st-class Certificate R.H.S.—Rivers & Son.

CURRENT, Black Champion.—This is one of the largest and handsomest Currants yet introduced, being larger than Lee's Prolific or Black Naples, and also sweeter and of finer quality, almost ranking as a dessert fruit. It also proved during the past hot summer to hang well after ripening. Received a 1st-class Certificate from the R.H.S. It was raised by Mr. Dunnett, of the firm of Carter & Co.

MELON.—*Best of All*: a cross between Colston Bassett and Goldeu Gem raised by Mr. McIndoe; 3 to 4 lb., round, the rind thin, deep orange, netted; flesh white, rich, and melting, with a most delicious flavour; 1st-class Certificate at Manchester, 1880; 1st prize at Royal Caledonian Horticultural Society, 1880; of good constitution, and free-bearing.—Dickson Brown & Tait. *Crawley Paragon*: a scarlet-fleshed variety of 6 to 8 lb. weight, roundish in form, finely netted, of a golden yellow; flesh deep and highly flavoured; 1st-class Certificate at Crystal Palace and Brighton.—Cheal & Sons. *High Cross Hybrid*: a very excellent, handsome, and productive green-fleshed variety, of roundish form and large size, the skin yellow, very finely netted, the flesh deep, pale green, tender and melting and of the richest flavour; raised at High Cross, Framfield; 1st-class Certificate R.H.S.—Veitch & Sons. *Shepherd's Model*: a pale-fleshed variety with long oval fruit of 5 to 6 lb. weight, yellow and handsomely netted; flesh almost white, deep, and close-grained, very rich and melting; "seed pressed close to the centre with scarcely any cavity."—Cheal & Sons. *Shepherd's Perfection*: a green-fleshed variety, averaging 6 to 8 lb., roundish-oval, closely netted, golden yellow; flesh unsurpassed for flavour; 1st-class Certificate at Brighton, and 1st prize at Manchester International.—Cheal & Sons. *Vauluse*

Cantaloup: a new early Freuch sort which has been very successfully grown for the French markets; it resembles the Early Prescott, but the fruit is flatter, and of a greyer colour.—Vilmorin-Andrieux & Cie. *Victory of Bristol*: a scarlet-fleshed variety of 5 to 6 lb., raised by Mr. Carmichael; it is of hardy constitution, handsomely netted, of the highest quality, with rich melting juicy flesh; 1st-class Certificate R.H.S., and 1st prizes at Crystal Palace and Manchester.—Sutton & Sons; Turner.



MELON: HIGH CROSS HYBRID.

PEAR, Welton Beurré.—A seedling from Marie Louise; fruit medium size, pale greenish, with long curved stalk, and large open eye; flesh soft, buttery, and melting, and of a very sweet pleasant flavour. This being from a locality where Pears are not generally very high in quality, the variety is specially commendable as being likely to prove useful in northern latitudes. 1st-class Certificate R.H.S. Raised by Col. Trevor Clarke.

NEW VEGETABLES.

ASPARAGUS, Harwood's Prizetaker Giant.—This appears to be a carefully selected stock, which has reached a high degree of development, being of very large size and excellent quality; obtained by Mr. Harwood of Colehester, who has exhibited samples weighing at the rate of 14 lb. 10 oz. per 100 heads, and gained many leading prizes.—Hooper & Co.

BEAN, Dwarf Green Gem.—A dwarf-growing, compact, prolific variety, very distinct in character, the beans pale green of superior flavour.—Sutton & Sons.

BORECOLE, Potter's Extra Curled.—A splendid stock of curly greens, with the leaves dark glossy green and densely crisped, so as to surpass the best parsley; selected by Mr. Potter, Seacliff Gardens, N.B.—Downie & Laird.

BROCCOLI, Ledsham's Latest of All.—This variety, of which we gave an illustration at p. 13, was raised by Mr. S. Ledham, market gardener, Broughton, Chester; in June last it was highly commended by the R.H.S. Fruit Committee as a very excellent late white sort; it is dwarf and compact in habit, self-protecting and very hardy, the heads pure white, slightly conical, and very solid; in use during May and June.

BRUSSELS SPROUTS, Marshall's Improved.—Considered by some to be the best selection in cultivation; the sprouts are of large size and very abundant.—Downie & Laird.

CABBAGE, All Heart.—A very dwarf and compact-

growing sort, the colour bright green with few outer leaves, and with long-rounded hearts; commended for small gardens.—Sutton & Sons. *Ellam's Dwarf Early*: a very fine selection of the Nonpareil, dwarf and close in habit, with very few outside leaves, and conical solid hearts; of excellent quality, "as a spring cabbage unsurpassed."—Veitch & Sons.

CAPSICUM, *Little Gem*.—A pigmy pepper, of very dwarf, compact, densely-bunched habit, the abundant flowers succeeded by small stalked round scarlet pods about the size of currants, which thickly stud the surface of the plants, and are very ornamental; probably a variety of *Capsicum baccatum*.—Williams.

CAULIFLOWER.—*Eclipse*: a very dwarf-growing variety, which is much appreciated by those who have grown it; the heads are about six inches over, of a pearly white, solid and nicely self-protected, while the plant withstands dry weather well, and the heads remain a long time in good condition; invaluable for supplying the table during the early autumn, as well as for exhibition.—Dickson Brown & Tait. *Superb Dwarf Hertfordshire*: "One of the finest and hardiest sorts in cultivation; heads very large, close, pure white, continuing a long time fit for use."—W. Paul & Son.

CELERIAC, *Large Smooth Paris*.—A favourite variety with the Paris market gardeners; bulbs large, regular, smooth, with few roots, of excellent quality.—Vilmorin-Andrieux & Cie.

CELERY, *Winchester Red*.—This fine celery is of the Manchester Red type, but has even thicker and more solid and fleshy leaf-stalks than that variety. The flesh is wonderfully crisp and tender, and possesses a remarkably fine nutty flavour. This has received a 1st-class Certificate from the R.H.S. Fruit Committee, and may be pronounced one of the best Celeries in cultivation—albeit Celery has been wonderfully fine in quality during the present season, owing possibly to the great amount of rain during the autumn months—Celery being almost an aquatic.—Rutley & Silverlock.



CABBAGE: ELLAM'S DWARF.

CUCUMBER.—*All the Year Round*: a white-spined variety of considerable merit, superior to Syon House and Lord Kenyon's Favourite, from 18 to 22 inches long, and adapted for either summer or winter crops.—Downie & Laird. *Cheal's Prolific*: a vigorous-growing prolific variety, suitable for market purposes, 15 to 20 inches long, even, with scarcely any handle, very slightly spined and fluted, delicately bloomed; flesh crisp.—Cheal & Sons. *Finchley Champion*: a variety raised by Mr. Clements, and certificated at Finchley; it is similar in appearance to Telegraph, 18 to 20 inches long, handsome and exceedingly prolific.—S. Dixon & Co. *Sharpe's Epicurean*: a cross between Telegraph and Tender and True, very productive, longer and darker green than Telegraph, which it otherwise resembles, and said

to be superior in flavour to Tender and True; a good successional bearer, seldom producing seeds.—C. Sharpe & Co. *Victory of Manchester*: a fine white-spined sort, dark green, perfect in form with short neck; 1st prize at Manchester International Show; a splendid cropper.—Sutton & Sons. *White Duke of Edinburgh*: a striking novelty, with long fruit of good shape, delicate white throughout, of good quality and flavour.—Cheal & Sons.

LEEK, *Lyon*.—A Scottish variety, raised in the border country; it is extremely vigorous in growth, and hardy in character, of large size, often as much as 3 to 3½ inches in diameter, and 20 inches in length, the blanched portion being as "crisp as celery."—Stuart, Mein & Allen (*Gard. Mag.*, 1882, 17).

LETTUCE (*Cabbage*), *Golden Ball*.—A small-growing variety, larger than Tom Thumb, equally compact, and very crisp and sweet; does not quickly run to seed; adapted for early forcing and for summer use.—Sutton & Sons.

ONION, *Cranston's Excelsior*.—A handsome globe-shaped small-necked pale straw-coloured variety, of a mild flavour and an excellent keeper.—Cranston's Nursery and Seed Company.

PARSLEY, *McBride's Extra Triple Curled*.—The "most curled of all curled parsley," of very dwarf and compact growth, and a decided acquisition for garnishing.—Downie & Laird.

PEA.—*Hutchings's Challenge the World*: a grand pea of the Ne plus ultra type, but said to surpass that variety in size, flavour, and cropping qualities, while the plant is remarkable for its more vigorous constitution.—Hutchings. *Walker's Perpetual-bearer*: a hardy constitutioned mid-season pea of robust branching habit, 3 feet high, a continuous bearer and great cropper, the peas being of first-rate flavour; it is wonderfully prolific and enduring, and a splendid succession pea; 1st-class Certificate R.H.S., and at Oxford; must be sown thinly, 12 to 15 inches apart.—Nutting & Sons.

POTATO.—*Manchester Rival*: an early round Ashleaf, a seedling from the old Ashleaf, as early as the parent, quite round and smooth; flesh white; mealy and finely-flavoured; grows a foot high, abundant cropper and forces well; 1st-class Certificate at Manchester, 1881.—Dickson Brown & Tait. *Premier*: an early white, of handsome form, a good cropper, the tubers round even, with small eyes, the skin rough, and the flesh solid, white and very flowery when cooked; a cross between Excelsior and Snowflake, and said to be the "earliest in cultivation"; the haulm is very dwarf, with broad foliage.—Downie & Laird. *Sutton's Fiftyfold*: a first-rate garden variety, round, occasionally elongated, white-skinned, the flesh whitish-yellow, very mealy, "perfect in flavour."—Sutton & Sons. *Sutton's Prizetaker*: a large, handsome, pale-red kidney-shaped variety, and a good cropper, remarkably fine in quality; 1st-class Certificate R.H.S., on being tested by cooking.—Sutton & Sons.

In addition to those mentioned at p. 187 (1881) as having been Certificated by the Fruit Committee of the R.H.S., the following were awarded 1st-class Certificates, namely:—*Cosmopolitan*: a large early white kidney.—R. Dean. *Early Cluster*: a half-round early white, very short haulm, considered very suitable for forcing.—R. Dean. *Fenn's Seedling No. 29*: a large very handsome pale red kidney.—R. Fenn. *President*: a large roundish white.—Bliss. *Troquois*: a large oblong white.—Bliss. *Tremont*: a large long flat white.—Bliss. These, therefore, are specially worthy the attention of those who take an interest in growing novelties.

SOJA, *Yellow Etampes*.—Much used in French cookery, but doubtfully cultivable here; it is of fine

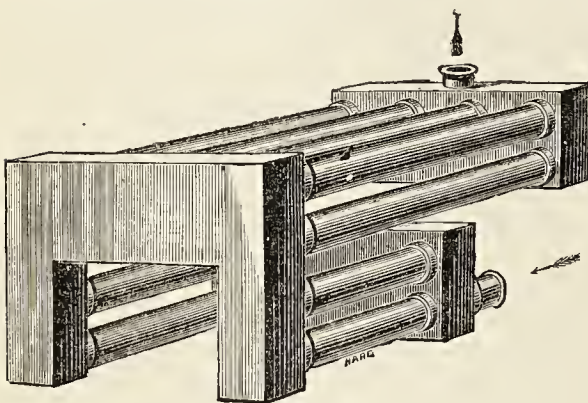
flavour, and very nutritious, the best way of preparing it being as a haricot; very prolific, and in France "under ordinary circumstances is early enough to ripen the greatest portion of the enormous number of pods it produces."—Vilmorin-Andrieux & Cie.

TOMATO, Queen of Tomatos.—A free-growing and very prolific early variety of compact habit; the fruit have a very handsome appearance, as they hang in racemes (10—15 on each); they attain an average size equal to that of a Victoria plum, and are pear-shaped, of a smooth glossy red, and of fine flavour.—Dickson Brown & Tait.

TURNIP, Early Marble.—A globular white-fleshed variety of the green-topped type, very early, with solid crisp flesh, of excellent cooking quality; said to be much superior to the Early Stone, and earlier than Strap-leaf.—Harrison & Sons.

NEW APPLIANCES.

HORIZONTAL TUBULAR BOILER.—This Boiler, of which a figure is annexed, is finding considerable favour amongst those who are interested in the heating of plant structures. It is made in various lengths from 6 feet to 14 feet according to the heating power required, and, as will be seen from the figure, consists of three water-way boxes, into which the pipes, which are specially made for the purpose, are jointed. The front and back of the furnace being fully exposed to the fire presents a large heating surface. The boiler is enclosed by brickwork, which presents no difficulty, and only requires the use of fire-clay shield tiles on the top to cover in the flues. The figure shows the return pipe entering from the back of the lower box, the flow pipe passing out of the upper box. These boilers seem to combine many of the separate advantages of the ordinary tubular and saddle boilers.—Thames Bank Co.



HORIZONTAL TUBULAR BOILER, ELEVATION.

CLARK'S PATENT SYPHON CONDENSING STOVE, though not intended specially for greenhouses, can be used with safety to keep out frost from small houses, up to 12 ft. by 8 ft., with a very small consumption of gas, not exceeding 6 feet per hour, costing less than $\frac{1}{4}d.$ at London prices. Similar stoves are in existence, but they do not *condense* the vapours so effectually as this does, and though a portion of the carbonic acid must escape, as it cannot be entirely condensed, it will not injure plants. These stoves are also useful for bedrooms or offices, as they keep up an even temperature of 50° to 55° , not varying 5° the whole night, though the external temperature may fall several degrees below freezing point. One advantage they possess is, that a very small tube will, if desired, conduct the products of combustion to the outside without loss of heat inside. They are also useful as an adjunct to existing heating pipes, where the boiler fire will not last beyond 3 A.M., which is generally the coldest

period of the night; they are not intended to give heat quickly, but gradually. Thus an apartment at 40° at 9 A.M. will be warmed to 50° by 10 A.M., and to 55° or 60° by 11 to 12 noon, and may be kept at 60° up to 10 P.M., or all night, if desired, with the external thermometer at 30° . Gardeners have generally, and very naturally, an objection to gas heating, and when burnt openly it is very injurious, but in

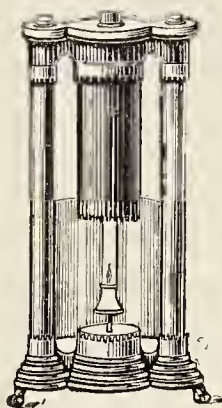


FIG. 1.

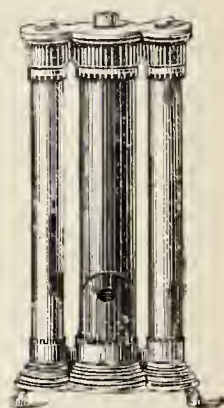


FIG. 2.

these stoves, which are entirely closed all round, such vapours as are not condensed must pass over or through a hot box directly over the flame, but not communicating with it, and as the temperature in this box must be heated to 300° to 400° , there is no chance of sulphurous or other vapour escaping. In proof of the condensing power of these stoves, it is found that in twenty-four hours the consumption of 120 feet of gas will produce three pints of liquid highly charged with sulphurous acid. To adapt them to gardening purposes, the moist air that would be required could be readily obtained by placing a vessel of water over the hot-air chamber; or if such an arrangement is preferred, they can be fitted with a copper boiler to circulate hot water in pipes in the usual way. The stoves can be had with an Argand Burner (as in Fig. 1), which burns 2—5 feet of gas per hour, and as it gives light as well as heat, is perhaps best suited for bedrooms; or with a Bunsen Atmospheric Burner (as in Fig. 2), which burns 4—6 feet of gas per hour, gives heat only, and that more powerfully and continuously, and would therefore be better adapted for greenhouses.—Warhurst.

NEW BOOKS, ETC.

FAMILIAR GARDEN FLOWERS: figured by F. Edward Hulme, F.L.S., F.S.A., and described by Shirley Hibberd. Second Series. London: Cassell & Co. This second series of pretty pictures of choice and familiar garden flowers, with their descriptions, forms a very pleasant and entertaining book. The figures, though small, are generally accurate, and the text is genial, readable, and of an eminently popular character, with just a spice of historical and a flavouring of cultural information. The volume contains forty of these neatly-coloured plates, each accompanied by four pages of letterpress. A Third Series is to be issued.

The **ORCHID ALBUM** (part V.) contains figures of *Pescatorea Kladochorum*, Rehb.f. [t. 17], from a plant flowered by Mr. Williams; the large white chocolate-tipped flowers are very beautiful, and the peculiar trowel-shaped sulcate lip marked with lines of purple-tipped papillæ, is very peculiar. *Burlingtonia candida*, Lindl. [t. 18], a very chaste basket Orchid with pendent spikes of sweet-scented flowers. *Anguloa Rucherii sanguinea*, Lindl. [t. 19], a remarkably bold and solid-looking flower, richly coloured, yellow outside, and blood-red within. *Dendrobium Ainsworthii*

roseum, Moore [t. 20], a charming hybrid, sister of *D. Ainsworthii*, with deeper-coloured flowers, the sepals and petals tinted with magenta rose, the lip almost wholly covered by mulberry crimson feathered blotches; raised by Mr. Mitchell, and named after his employer Dr. Ainsworth. Part VI. contains:—*Aërides Lobbii*, Lemaire [t. 21], a beautiful Moulmein plant with long drooping spikes of brightly-coloured, white and rosy-purple flowers; from the collection of C. J. Hill, Esq. *Cypripedium Lawrenceanum*, Rehb. f. [t. 22], from Borneo, one of the noblest of the Lady's Slippers, with chequered foliage, and very large flowers, in the way of those of *C. barbatum majus*; figured from Mr. Pollett's collection. *Lælia xanthina*, Lindl. [t. 23], a Brazilian species, with short clavate monophyllous stems, and showy golden-yellow flowers flushed with olive-green, the lip white in front, with stout crimson veins crossing the disk; figured from Mr. Williams' collection. *Masdevallia Harryana cærulescens*, Hort. [t. 24], a very richly-coloured variety in which the bright magenta flowers are more distinctly flushed with a bluish tint than in the ordinary varieties.

BOTANICAL MAGAZINE.—The number for January contains figures of the following plants:—*Pitcairnia corallina*, Lind. et André [t. 6600], a fine decorative stove perennial, with tufts of leaves of which the outer rudimentary ones are dry, hard, and spiny, and the inner, 6—8 in number, petiolate lanceolate and plicate, 2—3 feet long and furfuraceous beneath, while the flowers are in pendulous racemes, the peduncle, axis, pedicels, calyx, and corolla being all of the same brilliant coral-red colour; from New Grenada, flowered at Pendell Court, near Bletchingley. *Abelia spatulata*, Sieb. et. Zucc. [t. 6601], a low branched free-flowering hardy shrub of considerable beauty, introduced from Japan by Messrs. Veitch; it has opposite downy branches, elliptic-lanceolate leaves, and large greyish-white flowers with red calyx-lobes, in pairs at the tips of the short branchlets; the flowers are an inch long, between funnel and bell-shaped with a spreading limb. *Lespedeza bicolor*, Turcz. [t. 6602], a beautiful hardy shrub suitable for planting at the foot of a wall as it is frequently cut to the ground by frost, but springs again from the roots; it produces shoots 3 to 4 feet long, with short slender branches, trifoliate leaves, and numerous axillary drooping racemes 6—9 inches long of bright rose purple papilionaceous flowers; it was introduced to St. Petersburg in 1858, from N. China and Japan, and is also cultivated under the name of *Desmodium penduliflorum*, under which it was subsequently received through the Belgian gardens. *Saxifraga diversifolia*, Wall. [t. 6603], an Indian Saxifrage, a good deal resembling our native *Parnassia* in foliage and general habit, the stems ending in a loose corymb of yellow flowers. *Cambessedesia paraguayensis*, Hook. fil. [t. 6604], a rather handsome stove plant, with a woody rootstock, and erect annual quadrangular stems, furnished with small sessile elliptic-ovate three-nerved leaves, and a large terminal corymbose panicle of rosy-red melastomaceous flowers; native of Paraguay, and flowered by Messrs. E. G. Henderson & Son.

L'ILLUSTRATION HORTICOLE (11 and 12 liv.) contains figures of 6 varieties of *Begonia hybrida* (discolor—rex) [t. 434] named Mad. J. Moens, Mad. C. Weber, Mad. E. van Meerbeke, Souvenir de Mad. la Baronne de Bleichröder, Mad. N. Funck, and Baron A. de Vrièrre, raised by M. J. Moens—all with handsomely variegated leaves. *Masdevallia Shuttleworthii*, Rehb. f. [t. 435], a pleasing little cool Orchid from Colombia, with long-tailed sepals, yellow almost covered with rosy-red dots. *Gynura aurantiaca*, D.C. [t. 436], a stout-growing Composite from Java, having thick erect hairy stems, and large

sublyrate leaves, which are densely clothed with purple and dark violet hairs, which give them the appearance of being clothed with rich velvet; the flower-heads are orange-coloured. *Bouvardia Alfred Neuner*, Hort. [t. 437], a very fine double white-flowered sport from *D. Davisoni*; the flowers are in terminal corymbs, pure white, and distinctly double, and being of free-blooming habit it will thus doubtless become a valuable decorative plant; it is said that when propagated from side shoots the flowers revert to the single state, but this is probably owing to excessive propagation to meet the demand for so striking a novelty. *Rose* (H.P.) *Guillaume Gillemot* [t. 438], a very remarkable flower judging from its portrait, which shows it to be of large size, with broad shell petals, rather thin, but not showing any stamens, the colour a bright carmine rose; the flowers very abundant, freely perpetual, and very sweet; awarded the prize reserved for a seedling rose, by the *Société Horticole de Lyon*.—The 1 liv. (1882) contains *Alocasia Putzeysii*, N. E. Brown [t. 439], a fine Arad from Java, in the way of *A. Thibautiana*, but remarkable for having a white border, and the prominent ribs of the ovate-sagittate leaves stouter and whiter, and for having the transverse venation also picked out in finer white lines; the petioles are pale reddish purple, and the back of the leaves deep purple violet, the upper surface having a rich deep green ground colour; it was introduced by M. Linden, and was shown as *A. Lindeni* at the Exhibition in Antwerp in August, 1881. The *Nectarine Peach* [t. 440], one of Mr. Rivers' fine acquisitions. *Hibiscus rosa sinensis*, var. *Lucien Linden*, N. E. Brown [t. 441], a splendid variety introduced by M. Linden, with double flowers, of a pale yellow colour prettily variegated with bright red.

BELGIQUE HORTICOLE for October, 1881, contains representations of *Anoplophytum incanum*, E. Morr. [t. 11—12], the *Tillandsia argentea* of gardens, a dwarf Brazilian plant remarkable for its lipidotoy-hoary or silvery rosulate lanceolate leaves, and for its inconspicuous rosy flowers, scarcely emerging from the silvery-haired bracts. *Echmea Glaziovii*, Baker [t. 13], a distinct-looking Brazilian Bromeliad, with erect ligulate spiny-edged leaves, and a crowded panicle of flowers rising out of the centre, the calices rose-coloured, and the projected corollas purple, thus having rather a pleasing effect. *Montbretia crocosmiæflora*, Lemoine [t. 14], a pretty hybrid between *M. Pottsii* and *Tritonia* (*Crocosmia*) *aurea*; it grows about 2½ feet high, and has the habit of a *Gladiolus*, the equitant leaves being sword-shaped drooping at the point, and the inflorescence panicle, consisting of about four dense spikes of large deep orange red flowers of large size, having the centre yellow.

REVUE HORTICOLE (Jan. 1—16) contains plates of *Tillandsia Lindeni splendida*, a fine form of this charming Bromeliad, with the flat spike of rosy-coloured bracts, and the deep blue flower of *T. L. vera* but producing numerous spikes and having the flower larger and more freely developed; flowered by Messrs. Thibaut et Keteleer; and *Imantophyllum miniatum* *Madame Van Houtte*, a brilliant variety of this noble plant, with the large flowers of a bright cinnabar red with yellow throat; M. Truffaut.

REVUE DE L'HORTICULTURE BELGE for Jan., 1882, figures a fine sample of *Vallota purpurea*, the well-known Scarborough Lily.

BULLETIN D'ARBORICULTURE, &c., for Jan., 1882, has a figure of the handsome Pear *Jules d'Airoles*, a seedling raised by M. Léon Leclere, and ripening in November and December; the fruit is large, elongate conical, yellowish-green on the shaded, bright red on the exposed surface, with a fine white sugary juicy flesh, and a delicious aromatic flavour; fertile as a pyramid on the quince.

The GARDENERS' CHRONICLE (Dec. 24—Jan. 21) describes the following novelties:—*Nepenthes Hookeriana*, H. Low (p. 812, fig. 157), the Bornean plant, with subglobose or elongated green crimson-spotted pitchers, grown in gardens under this name, allied to *N. Rafflesiana* but sufficiently distinct for horticultural purposes. *Gongora similis*, Rehb. f. (p. 812), a novelty supposed to come from Colombia, has the flowers yellow, with large cinnamon blotches, the lip white with brown blotches; these grow in loose elongated racemes. *Nepenthes Courtii*, Hort. Veitch (p. 844, fig. 160), a fine hybrid between *N. Dominii* and an unnamed sort from Borneo; it is a handsome form with the pitchers cylindrical above the middle, dull green spotted with red, and having in front a pair of sharply lacinate wings. *Masdevallia picturata*, Rehb. f. (1882, p. 10), a little gem, with the leaves tufted, 2—3 inches high, the peduncles one-flowered, the flowers with white green-ribbed and green-tailed sepals, spotted with blackish-mauve, the lateral ones orange at the base; it is Colombian—probably. *Pescatoria Lehmanni* (p. 44, fig. 5), a very beautiful Orchid, the sepals and petals converging, broadly ovate acute, deep velvety violet, traversed longitudinally by several white lines; the lip is smaller and paler, clawed, three-lobed, the front lobe oblong-lanceolate, concave with revolute edges, the upper surface clothed with coarse setae, the side lobes bent upwards; the side view of the column and lip closely resembles an elephant's jaw. *Masdevallia triangularis*, Rehb. f. (p. 44), a small densely tufted plant, with cuneate oblong leaves, and numerous small light ochre-coloured flowers marked with innumerable brownish-purple spots; native of Venezuela; flowered by Mr. Sander. *Columnnea Kalbregerana* (p. 44), a very remarkable grower, noticed at p. 26. *Bomarea Shuttleworthii*, Masters (p. 76, fig. 11, 14), a very fine conservatory climber with scarlet and yellow flowers, see p. 26. *Lælia callistoglossa* (p. 76), a very beautiful hybrid Orchid, bred between *L. purpurata* and *Cattleya Warscewiczii* (*gigas*); the stem resembles those of the *Lælia*; the sepals and petals are rose-coloured, the lip has the anterior part of a warm dark purple, the upper edge yellowish, the disk whitish, with numerous purple lines; it promises to be a grand acquisition. *Cypripedium microchilum* (p. 77), another hybrid Lady's Slipper between *Cypripedium niveum* and *C. Druryi*; remarkable for its unusually small lip; the leaf is obscurely marbled; the flowers broader than in *niveum*, the upper sepal marked with a dark cinnamon stripe inside, and the petals also with a dark purple-brown middle line, while the lip is marked with purple-brown stripes; it was raised by Mr. Seden.

GARDEN GOSSIP.

THE Schedules of the ROYAL HORTICULTURAL SOCIETY are now issued, and contain those severally put forward by the National Auricula and National Carnation Societies (Southern Section), by the Pelargonium Society, and by the National Rose Society, as well as that for the R.H.S. Great Summer Show on May 23—25. In the latter, the principal prizes are £16 for 12 Stove or Greenhouse Plants; £16 for 15 Orchids; £10 for 8 Greenhouse Azaleas; £12 for a group of 100 fine Foliage and Flowering Plants; £12 for a group of miscellaneous Plants occupying a space not exceeding 300 square feet; £12 for 20 Roses in 10-inch pots; and £15 for 9 Roses in pots.

— THE PELARGONIUM SOCIETY, besides its usual prizes for specimens and novelties, offers

this year two £5 prizes respectively for the best Hybrid having for one of its parents *Geranium pratense* or *Geranium sanguineum*, and for the best Hybrid having for one of its parents *Pelargonium oblongatum*. The object is to introduce blue and yellow into the flowers.

— THE NATIONAL ROSE SOCIETY includes in its prize-list a Challenge Cup value sixty guineas offered by amateurs, to be held for the year, by the winner of the first prize for 72 single trusses in the nurseryman's division; and a corresponding Cup on the same terms is offered by nurserymen to amateurs in the class for 36 single trusses. A Gold Medal is offered for 3 trusses of any New Seedling Rose, not yet in commerce, or announced.

— THE ROYAL CALEDONIAN HORTICULTURAL SOCIETY has issued its Prize Schedule, which includes the list of prizes for the Great International Fruit and Flower Show to take place on September 13th and 14th next. That for the Spring Show runs to 116 classes, while the International goes up to 175 classes. There are two prizes of £31 10s. offered by the General Horticultural Co. (John Wills) for the best 6 sorts of Grapes, two bunches of each, and for the best collection of 12 sorts of fruit; besides which there are upwards of 40 classes for Grapes, 6 for Pine-apples, 6 for Stone Fruits, and 14 for Apples and Pears. The Veitch Memorial Trustees have placed three medals with £5 prizes in the hands of the Society, to be awarded as extra prizes to the best Black and White Grapes, and the best collection of Fruit. In the Gardeners' Plant division £20 are offered for 10 Stove or Greenhouse plants, £10 for 6 plants, £10 for a Table of plants 30 ft. by 5 ft., for quality and effect, £10 for 6 Orchids. In the Nurserymen's section £20 are offered for a Table of plants 30 ft. by 6 ft., and £10 for 8 Orchids.

— THE NORTHERN FLORISTS' SOCIETIES—the National Auricula (Northern Section), Royal National Tulip, and National Carnation and Picotee Societies (Northern Section) hold their Annual General Meeting on February 1st, at 3 P.M., at the "Old Bull's Head" (off the Market Place), Manchester, to arrange the dates and the schedule of prizes for this year's Exhibitions, and to transact any other business that may arise connected with the management of the several Societies.

— THE LORANTHUS EUROPEUS is, it appears, no longer living in the Glasnevin Botanic Garden, to which it was introduced a few years ago by the late Dr. Moore, and consequently the plant, though a native of Europe, is still a *desideratum* in our British gardens. Dr. Moore induced the seeds of this parasite—a near relative of our Mistletoe—to germinate on the oak and other trees at Glasnevin; but we read that the young plant progressed very slowly, just forming two tiny leaves, at which stage it stood for some time, and then died off, the cicatrix left by it being now the only remnant of its short-lived existence.

— IN reference to the growth of TIMBER IN AUSTRALIA, we learn that Mr. Charles Moore, Director of the Botanic Garden, Sydney, N.S.W., has announced the determination of the Government to propagate trees of commercial value for distribution amongst the colonists.



W. H. Fitch, del.

Chrome R. Stroobant.

Wistaria sinensis flore-pleno

WISTARIA SINENSIS FLORE-PLENO.

[PLATE 557.]

WE are indebted to Mr. Anthony Waterer, of Knap Hill, Woking, Surrey, for the fine specimen here represented of this beautiful hardy climber, first bloomed at Woking in 1879. It was received by him from North America, having, it would seem, been introduced by Dr. Hall from Japan, where it appears to have originated. It is a very handsome plant, as Mr. Fitch's drawing will show, and one which should find its way into general cultivation.

In its principal features it resembles the well-known single-flowered type, which has so long been a favourite in our gardens, the stem being woody, the habit vigorous, the leaves elegantly pinnated, and the blossoms abundant, in long drooping well-filled clusters. It differs from this type in having the individual flowers made up of several series of roundish concave petals set one within the other, and forming a double rosette-shaped blossom, about an inch in diameter; the colour is a lilac-blue, almost white towards the base of the petals, somewhat darker in the buds and in the undeveloped centres, thus very closely resembling the colours of the original plant. These flowers, as we learn from Mr. Waterer, when produced, as they freely are on plants in course of propagation, emit a most agreeable odour resembling that of violets to such an

extent that the propagating house becomes filled with their fragrance.

We have seen it stated that the plant is a shy bloomer, and that the flowers are diminutive, and wanting in colour. Such is not our experience of the plant, the flowers we have seen having been, as we have described, fully an inch across, and of a bright clear colour, while in the hands of the propagator almost every graft has shown its raceme of flowers. True the young stock plants, when first planted out, have grown with extraordinary vigour, and at this stage and in this condition have borne but a sprinkling of their clusters of flowers; but this surely was to be expected, since even young plants of the common sort, especially if they start away freely, have to put on something of the staid character of maturity before they yield much return in the shape of flowers. There can be no doubt that this double-flowered variety will do the same, as indeed Mr. Waterer's grafted plants with their flowers from every bud afford a sufficient proof. We have, therefore, no hesitation in recommending this novelty for any position where a strong-growing woody climber may be suitably introduced, and we have no doubt that in due time it will repay its possessor with a bountiful supply of its beautiful blossoms.—T. MOORE.

AN ECONOMICAL DRESSING FOR FRUIT TREES.

A FEW seasons since, in passing through the department presided over by the Clerk of the Works connected with the Belvoir Estate, I remarked a man busily engaged in colour-washing one of the workshops, against which a large Pear and a Plum tree were trained. The trees, not being unnailed, received a very considerable coating of the mixture, in fact they were completely and purposely covered. Expressing some doubt as to the propriety of such a rough and ready application, the man assured me that it was done every year, and that the trees not only escaped injury, but were remarkably free from insects all the summer season. It was winter time when the dressing was applied, and I took due

note of it, and obtained the particulars of the composition generally employed; it was a mixture of cement, ochre, and soot, the latter substances being used to give a better tone of colour to the wash.

The following summer the trees verified the account given to me by the workman; they were perfectly healthy, and free from insects. The following winter season I determined to give some of my trained trees the benefit of a similar application; a certain number of Peach trees were thickly smeared over, and the composition had the good effect of closing many of the nail-holes in the wall, and killing the fly which had hibernated in them, and beneath the loose plaster of the wall. May Duke, and Morello Cherries were also dressed,

and several large old Plum trees against a damp east wall. The result altogether was eminently satisfactory.

The trees were in no way injured, and were singularly free from the attacks of their usual insect enemies throughout the season. The green and black aphids were quite kept in check by this very simple and economical application, which was put on with a large white-wash brush, with the occasional use of an ordinary paint brush.—WM. INGRAM, *Belvoir Castle Gardens, Feb. 10th, 1882.*

CINERARIA CULTURE.

II.—FROM SEEDS.

IN raising Cinerarias for the decoration of the conservatory and indoor apartments, seed-sowing should be invariably resorted to in the case of the single varieties, for seedlings can be obtained in large numbers with but little trouble, and when grown with a fair amount of skill are of a suitable size for decorative purposes.

To obtain plants, seeds of the best quality should be obtained, and sown in shallow well-prepared pans, having about one-third of their depth made up with medium-sized crocks, then covered with a layer of flaky leaf-mould or some such material, and then nearly level with the rim with a mixture similar to that recommended for the offsets, but made somewhat finer. Press the soil firmly, make the surface perfectly level, and sow the seed thinly, to avoid the necessity for transplanting until the seedlings have attained to a size convenient for handling. Cover very lightly with very fine soil or sand, and sprinkle with water to settle the soil. The seed pans must, after the seed has been sown, be placed in a pit or frame in which a close and humid atmosphere can be maintained. In any case, it is essential to effectually screen them from sunshine until the plants are well above the surface. Special attention may well be directed to this point, because of the many failures that occur annually, owing to the seed pans and pots being too much exposed.

If plants are required to flower during the autumn for decorative purposes a beginning must be made early in May, but if not required till the beginning of the year it will not be necessary, or indeed desirable, to sow

the seeds until the second or third week of June.

The seedlings must not be weakened by being kept in too close an atmosphere. Therefore, as soon as they begin to make their appearance above the surface, admit a little air, and increase the ventilation as they gain in strength. But the ventilation must not be too liberal, especially during the hottest part of the day, as the seedlings make at this stage a much more rapid progress when the atmosphere is rather close and well charged with moisture. Shading must, as a matter of course, be employed during periods of bright weather, unless the frame is in a shaded position. As soon as large enough to handle, and before they are much crowded, prick them off into other pans, prepared in much the same manner as advised for those in which the seed is sown, but the loam should be used in a rather rougher state. To avoid injury to the roots, lift with a piece of pointed stick, and dibble them in carefully, and put them about an inch apart each way. Then water moderately, and place them in a pit, and keep close and shaded for ten days or so. A light shading during periods of bright weather will be requisite throughout the summer season, and shading must, therefore, be continued; but at the end of the period mentioned, they will have become sufficiently rooted to admit of the frame being ventilated without any risk of their receiving a check.

As soon as the leaves begin to touch, the plants should be potted separately into small sixties. From the small pots shift into others five inches in diameter, as soon as the roots begin to run freely round the sides of the ball, and, with the exception of those required in bloom at the earliest possible moment, shift into pots one size larger, at the end of December or the beginning of January.—J. JAMES, *Redlees, Islworth.*

NOTES ON CYPRIPIEDUM.

THE genus *Cypripedium* or Lady's Slipper, is, in my opinion, one of the most useful families amongst the Orchidaceous plants. In a collection there are always some of them in flower. It is, moreover, no small advantage that they last so long a time when cut; in a vase with their

stalks in water I have often seen the flowers stand quite fresh for more than six weeks. There are very few of the new sorts after all that can beat the old and well-known species called *C. insigne*, and of this we have two distinct forms, without including *C. Chantini* or *C. Maulei*. The two last-named sorts differ only from the typical form of *C. insigne* in having more white on the dorsal sepal, and the purple spots more distinct.

have often noticed that one scarcely gets two flowers spotted alike.

In regard to *C. Dayanum* I rather think a lot of *C. Hookeræ* is sold in its place; I bought some plants lately which have not yet flowered, but they are very like *C. Hookeræ*. Another very handsome species, and one well worth growing, is *C. superbiens*, also called *C. Veitchianum*; it is beautiful, alike in foliage and flower.



CYPRIPEDIUM VILLOSUM.

I have a Lady's Slipper called *C. Swaniatum*, which looks very like *C. barbatum superbum*, but whether so or not, it is a very fine thing; I had it in flower last autumn, and after standing fully out for about ten weeks it was cut and sent away amongst a box of Orchid blooms.

C. villosum with its finely varnished-looking flowers is also a great favourite of mine, as also is *C. Boxallii*, concerning which latter I

C. caudatum is a very fine plant, and, I think, likes a little more heat than most of its congeners; it has very curious-looking flowers, the long tail-like petals often growing from two and a half to three feet in length. I prefer the form called *C. caudatum roseum*.

The sorts above named are all what are called common ones; still, to my mind they will stand their ground against many of the newer kinds. I have not yet seen *C.*

Spicerianum, though from what I can hear of it it is a most desirable species to have, but I must wait till it gets a little less expensive before investing, especially when I have already got so many good old sorts.

I pot nearly all my *Cypripediums* in good clean sphagnum, a little rough peat, and some charcoal, and give them, when making their growths, a watering with weak liquid manure. I find this better than using loam or any such material in the compost, for it is apt soon to get sour, and thus to cause the plants to become unhealthy.—N. B.



ERYTHRÆA DIFFUSA.

REGISTER OF NOVELTIES.

NEW PLANTS.

ABIES EICHLERI, *Lauche* (*Garten-Zeitung*, 1882, 63, with col. plate).—A beautiful silver fir from the Caucasus, allied to *A. Nordmanniana*, from which the author distinguishes it by its cones, which in the young state are bluish-black instead of green, and at a corresponding stage of growth measure 70 millimetres (2½ in.) long, and 22 millimetres (1 in. nearly) broad, instead of 15 centimetres (6 in.) by 5 centimetres (2 in.); and by the whiter or paler under surface of its mature leaves, and the blue-green colour of its young shoots, whence it was at first regarded as a variety merely of *A. Nordmanniana*. The cones above referred to were produced by the only plant raised from seeds collected at Tiflis twelve years ago by Dr Radde. It forms a fine hardy evergreen tree, growing to the height of about 100 feet, of rapid and symmetrical growth, with brownish grey bark, bluish-green leaves, having two silvery stripes on the under surface; and cylindrical bluish-black cones about 3 inches long, rounded at the base, and shortly conical at the point. The tree is said to make its growth late in spring, and thus to escape damage from frost. Raised by *Garten-inspector Lauche*, of Wildpark, Potsdam.

ATHYRIUM FILIX-FEMINA UNCO-GLOMERATUM, *Stansf.*—A pretty dwarf variety of Lady fern with

the fronds branching and crested like those of *A. F.-f. acrocladon*, but the ultimate divisions are cut up into numberless minute segments like those of *Sisymbrium millefolium*.—F. W. & H. Stansfield.

BLECHNUM SPICANT AITKENIANUM, *Stansf.*—A neat dwarf evergreen hardy fern, of robust habit, with the lower portions of the fronds contracted, the surface slightly corrugated, and the apex magnified into a huge branching head, of which the under side bears traces of an excurrent line like the marginate *Scolopendrium*s. Found in Co. Clare by the late Mr. Stansfield, of Todmorden, and named in honour of his friend and travelling companion, Mr. Thomas Aitken.

BOMAREA CONFERTA, *Benth.* (*Gard. Chron.*, N. S., xvi., 330; xvii., 186, fig. 31).—A brilliant greenhouse climber, with fleshy tuberous roots, introduced from the mountains of Pichincha, and also from near Bogota; it is of vigorous growth, having downy purplish stems, and scattered broadly lance-shaped



LINARIA MARITIMA.

tail-pointed leaves 4—5 inches long, the stems terminating in large crowded drooping umbels of about 50 rich crimson funnel-shaped flowers, 2—2½ inches long.—Shuttleworth, Carder & Co.

BOMAREA VITELLINA, *Masters* (*Gard. Chron.*, N. S., xvii., 143, fig. 26).—A very beautiful tuberous-rooted climber adapted for conservatory culture. It has smooth stems, with ovate-oblong acute leaves and numerous showy flowers in large drooping umbellate cymes. The individual flowers are narrowly bell-shaped, 2 inches long, with the outer and inner perianth segments unequal in length, and of a rich deep orange-yellow colour. It is a native of Colombia, near Ocana.—Shuttleworth, Carder & Co.

ERYTHRÆA DIFFUSA, *Woods*.—A very pretty low-growing hardy perennial, of trailing habit; the well-ramified branches, with their roundish closely-set glossy green leaves lying prostrate on the ground, form a moss-like turf; the flowers standing erect appear in great profusion, so that the effect it produces, when planted in groups or beds, is exceedingly striking and beautiful, the colour being a lively rose similar to that of *E. Mühlenbergii*. For pot culture it is also well suited; moreover, the long drooping branches with their neat and elegant foliage make it adapted for hanging baskets, &c., and it is, like the Moneywort, of beautiful appearance even when not in bloom. It has been recently introduced to cultivation by Messrs. Haage & Schmidt.

LINARIA MARITIMA, *De Candolle* (*Garten-Zeitung*, 1882, 111, with coloured plate).—A pretty

dwarf compact-growing bush, about six inches high, producing conspicuous and effective showy bluish-purple flowers thickly enough to hide the foliage when in full bloom—during July and August. It is a perennial; but may be successfully treated like an annual, as it flowers and seeds the first season, and will by its great abundance of bloom prove a remarkably attractive border plant. — Haage & Schmidt.

MASCARENHASIA CURNOWIANA, *Hemsley (Garden, 1882, pl. 323)*.—A handsome evergreen stove shrub, of climbing and trailing habit, furnished with opposite, stalked, thinly coriaceous leaves about 4 in. in length, of an oblong acuminate form, and a dark green colour. It bears numerous small clusters of bright rosy-carmine flowers which have a slender tube, and a spreading limb, fully two inches across, of five oblong pointed segments; it grows and blooms

LERI, Moore.—A very much divided Polypody raised from spores by the late Mr. G. Fowler, of Burley, and differing from the old type of cornubiense only in being permanently decompound, like the old cornubiense when in its best character.—F. W. & H. Stansfield.

POLYPODIUM VULGARE VARIABLE CRISTATUM, Moore.—A remarkable variety of Polypody, of robust and vigorous growing habit, with the fronds irregularly branched, crested, cornute, and conglomerate. It was found by Mr. Job Mullins, of Beaminster, and was sent to us under the name of *glomeratum* (Jones).—F. W. & H. Stansfield.

POLYSTICHUM ANGULARE PERSERRATUM, Patey.—This beautiful novelty is in the way of *P. angulare Baylie*, but is a larger-growing plant and a great improvement on that handsome variety, the pinnales being very deeply lacinate or incised. It



CARTER'S COMPACT FRENCH GOLD-STRIPED MARIGOLD. (See p. 38.)

freely in an open loamy compost under the ordinary conditions of a moist plant stove, and is a decided acquisition to our collections; 1st-class Certificate R.H.S., August, 1881. The genus was named by De Candolle after Mascarenhas, the Portuguese navigator who discovered the island of Bourbon.—Low & Co.

MASDEVALLIA LUDIBUNDA, Reichenbach fl. (Gard. Chron., N. S., xvii., 179).—A charming little species of *Masdevallia* allied to *M. Estradae*, which it resembles in habit. The flowers are light yellow with the tail portion darker, the sepals spotted outside with brown, and on the interior surface with purple; the small petals and the pandurate lip are all light ochre-coloured. It was introduced from New Grenada by Mr. F. Sander, and flowered in the collection of Sir Trevor Lawrence, Bart., M.P.

POLYPODIUM VULGARE CORNUBIENSE FOW-

was found by Mr. G. S. Patey, of East Hedred, near Wantage; and is probably the finest of all the incised varieties of *P. angulare*.—F. W. & H. Stansfield.

QUESNELIA VAN HOUTTEI, Morren (Belg. Hort., 1881, t. 18).—A remarkably pretty bromeliaceous stove perennial, almost stemless, with a tuft of numerous somewhat erect coriaceous elongate linear-oblong acute leaves, very spiny at the margin and broadly sheathing at the base; the flower-spike is elongately cone-shaped, bearing numerous flowers, which are white tipped with dark blue, and emerge each from the axil of a small bright rosy red acuminate bract, the distinct colouring of red, white, and blue being very attractive; it was provisionally named *Echinostachys Van Houtteana* in M. Van Houtte's Catalogue for 1878, and flowered for the first time in Europe in M. Van Houtte's

collection, in May, 1881, having been introduced from Brazil by him some few years previously.

RHODODENDRON QUEEN VICTORIA.—One of the fine and useful hybrids of the jasminiflorum type obtained of late. The plant is of free-growing habit, and produces bold trusses of reddish-orange buff flowers of fine form; 1st-class Certificate R.H.S., Feb., 1882.—J. Veitch & Sons.

TACSONIA PARRITE, *Masters (Gard. Chron., N.S., xvii., 218, fig. 34).*—A very handsome evergreen stove climber, of free-growing habit, small deeply three-parted leaves, producing from their axils long slender-stalked flowers which have a cylindrical tube over 3 in. long, boat-shaped oblong obtuse, aristately alato-carinate sepals about 3 in. long, of a rosy-orange colour, and very much shorter oblong-flat petals of a rich orange; the corona consists of an outer row of teeth and an inner incurved membrane. Introduced from Tolima by Messrs. Shuttleworth, Carder & Co.

NEW FLOWERS.

CYCLAMEN (PERSICUM), *giganteum compactum.*—A very fine large-flowered variety, the blossoms of which are of fine shape, of immense size, and of a pure white colour, the mouth magenta crimson; habit compact; the leaves large and handsomely marbled; 1st-class Certificate R.H.S., Feb., 1882.—R. Clark. *Giganteum roseum compactum*: flowers rosy pink, large and finely formed, numerous produced; dwarf compact growth, and handsomely marbled leaves; 1st-class Certificate R.H.S., Feb., 1882.—C. Edmunds.

MARIGOLD, *Compact French Gold-striped.*—This is a very beautiful dwarf variety, and as seen growing in Messrs. Carter & Co.'s seed grounds at St. Osyth, remarkable for the brilliancy of its colours, and the constancy and distinctness of its striping. It grows about six inches high and ten to twelve inches across, forming close compact tufts, which in the season are freely covered with large flower-heads, the rich chestnut-brown striping of which on the golden ground is very effective. It is the result of many years' careful selection, and is one of the best hardy annuals of its class.—Carter & Co. (See p. 37.)

PANSIES.—*Avon Beauty*: crimson shaded mulberry, with rich dark blotches; a flower of splendid form and substance. *Governor General*: yellow ground, with dark purple belting; extra fine. *Mrs. Barnes*: large puce violet blotches, creamy edge; very fine. *Mrs. Mitchell*: pure white, with large bluish velvety blotches; a fine show flower. *Mrs. Way*: white shaded with pink, darker on the back petals with solid blotch; of fine substance. *New Colour*: rich bronzy crimson with dark blotches, edged with yellow; a splendid flower.—All raised by H. Hooper.

PRIMULA ELATIOR, *Harbinger.*—A very fine white-flowered Polyanthus, profuse of bloom, the individual flowers pure, and of handsome shape; makes a fine pot plant; 1st-class Certificate R.H.S., February, 1882.—R. Gilbert.

PRIMULA SINENSIS (*fimbriata*), *Carmine Gem.*—The flowers of a rich carmine crimson, very bright and fine in colour; one of the most fiery of the new red shades produced of late; very fine well-formed pips, and good habit.—H. Little. *Magenta Gem*: flowers of a rich magenta crimson, very bright and effective; large bold pips of fine form; good compact growth; 1st-class Certificate R.H.S., February, 1882.—H. Little. *Meteor*: flowers very fine and striking in colour; brilliant crimson red; an improvement on Chiswick Red, and of remarkably good habit.—H. Little. *Meteor Improved*: also of a rich blood-red colour, deeper than the foregoing, but like it; not well-formed, but valuable as a breeder.—H. Little. *Purple Jewel*: flowers pale purple, distinct and good, but wanting in the intensity of colour which gives such a value to Chinese

Primulas at this season of the year; large well-formed pips and good habit.—H. Little. *Rose Superb*: flowers of a deep rosy magenta, distinct and fine in colour; large and handsomely-formed pips of great substance; good habit.—H. Little. *The Queen*: flowers blush, of immense size and great substance, produced on quite small plants; one of the largest forms we have yet seen; vigorous in growth, with handsome fern-like foliage.—J. Veitch & Sons. *White Perfection*: flowers white, very slightly suffused with blush; fine pips of excellent substance; good truss and habit.—H. Little. The foregoing varieties of the Chinese Primrose all belong to the fimbriated series.

ROSE (HYB. TEA), *Lady Mary Fitzwilliam.*—A handsome new rose, raised from *Devoniensis* crossed by *Victor Verdier*. The flowers are of medium size, of a pretty silvery pink colour, deeper rose pink in the centre, broad smooth petals, the outer of which are somewhat reflexed; very pretty in the bud or half-opened state; one of the new hybrids raised by Mr. H. Bennett.

NEW FRUITS.

APPLE, *Rambour Papeleu.* (Bulletin d'Arboriculture, 1882, 33, with coloured plate.)—A very handsome fruit, introduced from the Crimea, about 1853, and apparently little known; the fruit is large, roundish, or depressed conical, the skin deep yellow flushed and streaked with red; it is of good quality, slightly acidulous, with a pleasant flavour, and ripens at the beginning of winter, keeping good till January; it is a hardy, vigorous, and free-bearing apple, which may be recommended for its fine appearance.

GRAPE, *Golden Pocklington.*—In his Floral Guide for the Spring of 1882, Mr. J. Vick, of Rochester, N.Y., gives a nice figure of this American variety, of which he says: "This is a seedling from the Concord, raised in Washington Co., N.Y. It has proved to be perfectly hardy; the vine is a strong, vigorous grower, and has never been known to mildew, either in fruit or foliage; the colour is a beautiful light golden yellow, covered with a fine bloom; bunches large, sometimes shouldered; berries round, very large, thickly set on the bunch, to which they cling very firmly; in quality it is unsurpassed, being of a rich, pleasant, sweet flavour." The figure shows a medium-sized compact oblong bunch, with round berries, much like a highly ripened Royal Muscadine, but of a more golden hue.

NEW APPLIANCES.

SIMPLEX LEAF-LIFTER.—This is essentially an amateur's implement, one of the same class as the spud-ended walking-stick, with which proprietors are prone to prod the daisies and dandelions which obtrude on their well-kept turf and gravel. We recommend it, in the name of tidiness, to all these who object to see their gardens and pleasure-grounds disfigured by the presence of fallen foliage and other litter. The little implement consists of a walking-stick fitted with a moveable prong, by means of which leaves and other *rejectamenta* may be picked up without trouble, or stooping, or soiling the hands. Care should, however, be taken that the prongs be not over-charged; and if the plate should overshoot the points of the prongs, repetition may be avoided by a slight adjustment of the screw nuts which secure the perforated plate to the propelling rod. It is an invention of a very simple character, and may be carried as easily as a walking-stick; it enables the operator to remove leaves from between and under plants or shrubs that cannot be touched by broom or rake with-



out doing mischief. When the implement is not in use the india-rubber spring should be released, to preserve it, and the plate extended to the points of the prongs in order to shield them from injury.—Albert Smith, Gondhurst.

NEW BOOKS, &c.

The BOTANICAL MAGAZINE for February contains:—*Zephyranthes citrina*, Baker [t. 6605], a rather pretty amaryllidaceous bulb from tropical America, requiring stove treatment; it has largish round bulbs, narrow linear leaves, contemporary with the yellow funnel-shaped flowers about 2 inches long on ancipitous scapes; flowered by Messrs. Veitch, supposed to be from Demerara. *Pitcairnia alta*, Hasskarl [t. 6606], a very ornamental stove bromeliad, acaulescent, with tufts of linear-lorate recurved leaves 2—3 feet long, a paniculate inflorescence 5 or 6 feet high, made up of narrow coral-red flowers, which are fully 2 inches in length, the petals being twice as long as the sepals; the leaves are white-lepidote on the under surface; native of the West Indies, flowered at Kew. *Selenia aurea*, Nuttall [t. 6607], a dwarfish weedy glabrous annual, from Arkansas and Texas, having few spare-looking pinnatifid leaves, and racemes of yellow flowers; flowered at Kew. *Sterculia discolor*, Benth. [t. 6608], a shrubby greenhouse plant of arboreous character, with hoary tomentose branches, large palmatifid leaves, and rosy-red funnel-bell-shaped flowers (calyx) disposed in terminal contracted spicate panicles; native of New South Wales: Kew. *Parnassia nubicola*, Wall. [t. 6609], a dwarf herbaceous perennial from the Himalaya Mountains, with stalked ovate or elliptic-ovate 5—7-ribbed leaves, and solitary greenish-white flowers on rather tall scapes: Kew. *Sempervivum Moggridgei*, Hort. De Smet [t. 6610], a small hardy succulent perennial, the leaves elongate-cuneate or oblanceolate, collected into rosettes 2 inches across, with a few cobwebby hairs at the tips, and 3—4-forked cymes of starry rose-coloured flowers; received at Kew under the above name from M. De Smet, and closely allied to *S. arachnoideum*.

L'ILLUSTRATION HORTICOLE (2 liv.) contains coloured figures of *Nephrodium Rodigasianum*, Moore [t. 442], a fine evergreen stove fern from the Samoan Islands, with tall bipinnatifid fronds, remarkable for their gracefully arching habit, and for their gradually diminishing pinnae, which extend nearly to the base of the stipes; it will form a handsome addition to the larger-growing decorative species. *Oncidium incurvum album*, Rehb. f. [t. 444], a pretty variety which bloomed some time since in the establishment of M. J. Linden; the flowers are white, ornamented with bands and spots of purple; native of Mexico. This number also contains a coloured plan of the new park recently formed at Ghent.

GARTENFLORA for December, 1881, and January, 1882, contains figures of *Lonicera Alberti*, Regel [t. 1065], an elegant dwarf branching shrub, with opposite linear-oblong glaucous leaves, bearing pretty rosy-lilae fragrant flowers in pairs in their axils; sent from the mountains of Eastern Turkestan by Mr. A. Regel to the St. Petersburg Botanic Garden. *Maxillaria hyacinthina*, Rehb. f. [t. 1066], a stove epiphyte, with oblong sulcate pseudobulbs, with broadish plicate leaves, and short dense hyacinth-like spikes of small white flowers blotched with yellow at the base of the lip; St. Petersburg Botanic Garden. *Lycopodium dichotomum*, Sw. [t. 1067], one of the larger tropical species of Club-moss, with the stout dichotomous branches bristling with linear-acuminate spreading leaves of a bright green colour; native of the West Indies. *Incarvillea compacta*, Maxim.

[t. 1068], a beautiful dwarf herbaceous perennial, with rosulate pinnatisect fleshy leaves with subcordate-ovate segments, the very short stem terminating in a dense congested head of large tubular bright rosy-pink flowers with a five-lobed spreading limb; it was found in the province of Kansu, in north-western China, in the northern portion of the Thibetian Mountains, at an elevation of 8,000 feet, and seeds were transmitted to St. Petersburg Botanic Garden in 1880, by M. Przewalski. *Gentiana Fetisowi*, Regel et Winkler [t. 1069, fig. 1—5], a handsome hardy perennial, with tall erect stems, bearing narrow lanceolate five-nerved entire decussate leaves, the radical ones rosulate, the flowers are crowded at the upper ends of the shoots, sessile, deep blue, the interior of the tube whitish; it came from Mount Juldus in Turkestan, and seeds were sent to St. Petersburg Botanic Garden by M. Fetisow. *Gentiana Olivieri*, Griseb. [t. 1069, fig. 6, 7], a low tufted herbaceous plant, with oblong root leaves, from amongst which spring the slender span-high flowering stems which bear opposite linear leaves, and are terminated in dense glomerate racemes of large handsome deep blue tubular flowers, which are an inch and a half in length; widely distributed over the mountains of Turkestan, at a height of from 5,000 to 8,000 feet, and sent thence to St. Petersburg. *Veratrum Maackii*, Regel [t. 1070], a stately hardy perennial, with an erect stem, growing 3 to 4 feet high, furnished below with oblong-lanceolate, and above with linear-lanceolate leaves, and terminating in a racemed pyramidal panicle of numerous small star-shaped blackish-purple flowers; it is nearly allied to *V. nigrum*, and was introduced by M. Gildenstaedt some eight years since to the St. Petersburg Botanic Garden from the Ussur region of Amurland.

BELGIQUE HORTICOLE (Nov.—Dec., 1881) gives illustrations of *Movement in plants* [t. 15]. *Dracena Massangeana*, Hort. Jacob-Makoy [t. 16], a very ornamental form of a well-known temperate stove plant, having a tall stout erect stem, terminated by a loose rosette of elongate elliptic wavy recurved leaves, which are dark green at the margin, and marked down the centre by broad bands of golden green; the flowers are small yellowish white fragrant, and produced in a large panicle from the heart of the plant; it is sometimes known as *D. fragrans medio-variegata*, and is probably a variety of the South African *D. fragrans*, which has appeared under cultivation; it is now in the bands of M. M. Jacob-Makoy, of Liège. *Cryptanthus Beuckeri*, Morren [t. 17], an ornamental-leaved stove plant, belonging to the bromeliaceous order; it forms a low dense tuft, with the leaves flat, coriaceous, ovate-lanceolate, undulate spinescent, elegantly marked with transverse streaks of coppery rose and pale green, the under side greyish, the small white flowers in a dense panicle nestling amongst the leaves; it was discovered in Brazil and brought to Europe by M. S. de Beucker, of Antwerp. *Quesnelia Van Houttei*, Morren [t. 18], a pretty bromeliaceous stove perennial, remarkable for its triecoloured inflorescence; the leaves are erect and spiny; and the flowers grow in an elongated cone-shaped head, the white and blue corollas being set off by the rosy-red bracts; introduced from Brazil by M. Van Houtte; see p. 37.

BULLETIN D'ARBORICULTURE, &c., for Feb., 1882, contains a handsome figure of *Apple Rambour Papeleu*, for description of which see p. 38.

GARTEN-ZEITUNG, for Feb., contains a coloured plate of *Abies Eichleri*, of which a description is given at p. 36. The number also contains plans and descriptions of the Great Palm-house at Herrenhausen.

ICONOGRAPHY OF INDIAN AZALEAS.—Part 4 contains plates of *Reine de Portugal* (10), a fine double white; *Jean Fervaene* (11), fine salmon-rose, with white border; *Generalpostmeister Stephan* (12), a brilliant crimson.

The GARDENERS' CHRONICLE (January 28—February 18) describes the following novelties:—*Piper borneense*, N. E. Brown (p. 108), a new stove Pepper from Western Borneo, of little horticultural importance, with hairy stems, and elliptic leaves striped between the numerous nerves with silvery-grey bars: Veitch & Sons. *Chlorophytum Kirkii*, Baker (p. 108), a stove evergreen herb, resembling *C. elatum* in habit, with the leaves subdistichous, lorate, bright green, $1\frac{1}{2}$ —2 feet long, and the small white flowers in short erect spikes; E. Tropical Africa: Kew. *Odontoglossum mirandum*, Rehb. f. (p. 143), a new Odontoglossum in the way of *O. Lindleyanum*, and sometimes called *O. Lindleyanum compactum*; but the bulbs are plumper, the inflorescence more rigid, and the colours of the flowers much brighter; New Grenada: W. Lee, Esq. *Nepenthes rubro-maculata*, Hort. Veitch (p. 143, fig. 24), is a handsome hybrid pitcher-plant, raised between the cross-bred *N. hybrida* and a Bornean species, probably *N. lanata*; it has somewhat cylindrical pitchers, 5—6 in. long, yellowish-green spotted with claret and fimbriately winged, the mouth having a broad flat deep red rim: Veitch. *Nepenthes Wrigleyana*, Hort. Veitch (p. 143, fig. 23), is another handsome hybrid raised between *N. phyllamphora* and *N. Hookeri*, and somewhat resembles *N. Ratcliffiana*; the pitchers are flask-shaped, pale green with crimson blotches, furnished with narrow ciliate wings, the mouth having a green-ribbed rim: Veitch. *Bomarea vitellina*, Masters (p. 143, fig. 26), a beautiful conservatory climber, introduced from Oceania, and bearing rich yolk-of-egg-coloured flowers in drooping umbellate cymes; see also p. 36. *Masdevallia Fraseri*, Rehb. f. (p. 143), a handsome hybrid raised between *M. ignea* and *M. coccinea* by Mr. Fraser. It has long-stalked leaves, and resembles *M. coccinea* in the colour of the flowers: Veitch. *Odontoglossum cristatellum*, Rehb. f. (p. 143); under the foregoing name Prof. Reichenbach refers to a very handsome form of this fine yellow and brown Odontoglossum received by Mr. F. Sander from Mr. F. C. Lehmann who sent it under the name of *O. Lehmanni*. *Ficus elastica aurco-marginata*, Hort. (p. 143), a striking variety of the well-known India-rubber plant in which the leaves are handsomely margined with golden-yellow; very effective when well developed, the yellow band being about an inch broad. *Nepenthes lanata*, Hort. (p. 178); some confusion appears to exist as to this species of Pitcher-plant, which was figured a few years ago under the name of *N. lanata* in the *Illustration Horticole* (t. 261), the accompanying description being that of another kind, apparently *N. Veitchii*. The pitchers are cylindrico-tubulose, thinly covered with coarse black hairs, greenish, winged on the posterior side, the wings toothed and fringed, the mouth having a narrow finely ribbed reddish-brown rim; it was introduced from Sarawak through Mr. Lobb to the rich collection of Messrs. Veitch. *Nepenthes Ratcliffiana*, Hort. Veitch (p. 178, fig. 28), a hybrid between *N. phyllamphora* and *N. Hookeri*, with serrulate leaves, and flask-shaped pitchers which are green spotted with red, the mouth surrounded by a ribbed particoloured rim; the pitchers are freely produced, brightly coloured and attractive. *Nepenthes intermedia*, Hort. Veitch (p. 178, fig. 29), a fine hybrid between *N. Rafflesianum* and an unnamed Bornean species; the pitchers are rather large and distinct in form, somewhat cylindrical, pointed at the base and tapering upwards, green irregularly

blotched with red, furnished with broad fringed wings, and having a broad, flattish, particoloured rim at the mouth, which is oblique and prolonged at the back; raised by Mr. Court at Messrs. Veitch's nurseries. *Dendrobium Christyanum*, Rehb. f. (p. 178), a Siamese species of the nigro-hirsute section; it has short fusiform stems, bearing fine ivory white flowers, the base of the column and the disk of the lip cinnabar, thus resembling *D. Jamesianum*, though smaller in all its parts, distinguished by its blunt angular chin; introduced by Mr. T. Christy. *Odontoglossum histrionicum*, Rehb. f. (p. 178), a supposed wild hybrid of considerable beauty, in some points resembling *O. mulus*, with sulphur-yellow flowers transversely barred with brown, the sepals ligulate, wavy and acute, the broader petals whitish with light sulphur at the tip, the lip trifid, the side lobes oblong, yellow, with a reddish border of confluent spots, the front lobe oblong, retuse, wavy and toothletted, yellow, with a few brown spots and streaks; on the disk there are four calli on each side, the anterior ones lamelliform, the wings of the column are cut into many falcate teeth; introduced by Mr. W. Bull. *Masdevallia ludibunda*, Rehb. f. (p. 179), a lovely species from New Grenada; flowers light yellow spotted with purple: see p. 37. *Masdevallia polysticta crassicaudata*, Rehb. f. (p. 179), a curious variety of *M. polysticta*, flowered by Sir Trevor Lawrence; it has the tails of the perianth segments much shorter and stouter than in the type. *Bomarea conferta*, Benth. (p. 186, fig. 31), a superb conservatory perennial with fleshy tuberous roots, soft climbing stems, and densely crowded drooping clusters of rich crimson flowers; see p. 36. *Columnea Kalbreyeriana*, Masters (p. 216, fig. 32), a remarkable stove gesneriad, with elongated drooping lanceolate anisophyllous leaves, the alternate ones on either side of the stem being long and short, the under surface of both being of a deep claret red; flowers yellow striped inside with red; noticed at p. 26. *Cattleya Dormaniana*, Rehb. f. (p. 216), a fine hybrid, the parents of which are considered by Reichenbach to be *Lælia pumila* and *Cattleya bicolor*; it is remarkable for its greenish-yellow sepals and petals, which are margined with cinnamon brown; Prof. Reichenbach also refers to a somewhat similar plant, *Lælia Dormaniana*, which has more than the normal number of pollinia. *Aralia quinquefolia gracilis*, Hort. (p. 217), a handsome greenhouse shrub, of slender habit, with long cylindrical leaf-stalks supporting a palmate blade of five linear remotely toothed segments; raised in the nursery of Messrs. Rodger, McClelland & Co., of Newry. *Odontoglossum Wilckeanum pallidum*, Rehb. f. (p. 217), a variety with light sulphur-coloured flowers, with one large brown spot on each sepal, the petals being spotless, and the acute fimbriate lip marked with a few brown spots: W. Bull. *Oncidium Lanceanum louvrexianum*, Rehb. f. (p. 218), a magnificent variety with yellowish green spotted flowers, the lip mauve-coloured tipped with white; flowered with Mons. D. Massange, of Louvrex. *Cypripedium discolor*, Rehb. f. (p. 218), a hybrid of the *C. venustum* type, raised in the collection of Mr. R. Warner. *Cypripedium Williamsianum*, Rehb. f. (p. 218), one of the same batch of hybrids as the foregoing, and a very handsome plant; the leaves are nicely tessellated, the flowers showy, the dorsal sepal large white with a dark middle line, and green veins, the petals a tawny red, the lip ochre-yellow, something like that of *C. villosum*. *Lycaste sulphurea*, Rehb. f. (p. 218), a species allied to *L. cruenta*, with the flowers pale sulphur-coloured, the petals having a large dark purple blotch at the base, and the obtuse-angled callus being orange-yellow; flowered with Mr. Bull. *Tacsonia Parrita*, Masters (p. 218, fig.



J L Macfarlane del.

Chromolith Severeys Brussels

Cherries.

1. Bedford Prolific. 2. Bigarreau Gros Cœur.

34); a very fine stove climber from Tolima, with three-lobed leaves and long-tubed rosy-orange flowers; see p. 38.

The GARDEN (Jan. 7—Feb. 11) contains coloured plates of the following:—*Ivy-leaved Pelargoniums* [pl. 318], *Beauté de Lyon*, scarlet; *Innocence*, white—singles; *Anna Pfitzer*, salmon-pink—semidouble; *Dr. Brocca*, purplish-pink; *Robert Fortune*, rosy-pink; and *Gloire d'Orléans*, magenta-rose—doubles. *Chrysanthemum coronarium* varieties [pl. 319], fine varieties of a pretty old-fashioned annual. *Canna iridiflora Ehemanni* [pl. 320], a noble stove species, with bold handsome green leaves, and large splendid drooping crimson flowers, produced in succession throughout the season; it is a gorgeous plant which has come to us from the Continental gardens within the last year or two. *Modiola geranioides* [pl. 321], a charming little malvaceous perennial, said to be hardy on warm dry rock-work, with palmately-parted leaves having narrow pinnatifid segments, and the rich rosy-purple flowers measuring two inches across. *Cattleya aurea* [pl. 322], a very beautiful stove epiphyte, something in the way of *C. Dowiana*, but coming from a widely different habitat, the Cordillera west of the Upper Magdalena, in New Grenada; the sepals and petals are sulphur-yellow, the latter broader, paler, and much undulated, and the lip is broadly margined with rich crimson and marked over the golden centre with divergent veins and splashes of the same rich colour; introduced in 1876 by Messrs. Backhouse & Son, but only recently flowered. *Mascarenhasia Curnowiana* [pl. 323], a very showy stove evergreen climbing shrub from Madagascar, with bright rosy-carmine apocynaceous flowers, noticed at p. 37.

JOURNAL DES ROSES (Jan.—Feb., 1882) contains coloured portraits of *Rose (H.P.) Boieldieu*, a very fine novelty raised from *Jules Margottin* crossed by *Baronne Prévost*; it is cup-shaped, full, with broad smooth petals, and of a pretty cerise rose; awarded a first prize by the Société Centrale d'Horticulture de France, in 1877: *M. Margottin fils. Rose (Tea) Madame Bérard*, a charming delicate-tinted, free-blooming variety with moderate-sized blossoms which are very full, of a soft pale yellow colour with a coppery tint about the centre, the outer petals tinged with delicate salmon rose; the flowers are sometimes entirely of a coppery yellow; raised by *M. Antoine Levet*, of Lyons, from *Gloire de Dijon* fertilised by *Madame Falcot*; the foliage is of a fine deep green colour.

The ORCHID ALBUM (part VII.) contains the following subjects:—*Cymbidium Parishii*, Rehb. f. [t. 25], a very beautiful epiphyte from Moulmein; it has fusiform stems, evergreen distichous ligulate-linear leaves, and scapes supporting about three beautiful white flowers, which have the labellum ornamented with orange and purplish-red markings; first flowered by *W. Leach, Esq.*, of Fallowfield. *Cattleya velutina*, Rehb. f. [t. 26], a strikingly distinct orchid, with slender terete stems, bearing a pair of oblong bluntish leaves, and two-flowered scapes, the flowers having tawny orange sepals and petals spotted with purple, and a white lip richly veined with purple; it comes from Brazil, and was figured from a plant flowered by *Sir Trevor Lawrence, Bart.*, M.P. *Odontoglossum brevifolium*, Lindley [t. 27], a very peculiar-looking plant, from the Peruvian Andes, having monophyllous pseudobulbs, short oblong leaves, and dense erect racemes of rich chestnut brown flowers narrowly margined with yellow, and of which the lip is small and yellow; the figure was prepared from a specimen which bloomed in the collection of *Mons. F. Massange, of Liège*. *Zygopetalum Gautieri*, Lemaire [t. 28], a fine Brazilian epiphyte, whose rhizomes creep over the stems of

tree-ferns in their native habitats, and produce oblong acapitous pseudobulbs, oblong plicate distichous leaves, and drooping racemes of three to six showy flowers, in which the sepals and petals are green blotched with brown, and the lip of a rich violet purple, deeper about the ruff which surrounds the column; it is a free-flowering plant, and continues a long time in bloom; the plate was prepared from a plant which flowered in the collection of *Mons. D. Massange, of Marche*.

DESSERT CHERRIES.

[PLATE 558.]

CHERRIES of choice quality are always welcome on the table; and though we have certain old well-known indispensable sorts, yet there are many others of good quality now known, which it is desirable to introduce for the sake of the variety they give to a high-class dessert. *Mr. Rivers, of Sawbridgeworth*, has been instrumental in bringing before the notice of fruit-growers some of these hitherto little-known sorts, and we have to thank him for the samples figured in the accompanying plate, and also for the following descriptive notes:—

THE BEDFORD PROLIFIC (fig. 1) is a seedling raised from the Black Tartarian, a very well-known and excellent sort, but better fitted for walls or orchard-houses than for standards in the open air, as it is too tender for our rigorous climate. The Bedford Prolific, while possessing the excellent qualities of its parent, has the advantage of being much hardier, and is a cherry which will flourish in any situation and climate in which the May Duke will ripen; it is large, juicy, and rich in flavour, though inferior to the Black Tartarian, but this inferiority is amply compensated for by its superior vigour and hardiness.

THE BIGARREAU GROS CŒURET (fig. 2), which I have had the greatest difficulty in procuring true to name, has proved one of the largest and best of the Bigarreus; it is true that I have always grown it under glass, and that an exceptional size and flavour has resulted. In the same house I have grown the ordinary Bigarreau and the Bigarreau Napoléon, both among the best of their class. The Bigarreau Gros Cœuret has, however, proved itself superior in size and flavour to either of these two sorts. *Leroy* enumerates 20 synonyms—a good proof of its excellence; and it was described by *Olivier de Serres* in 1600 as a well-known cherry in his time—a proof of its antiquity. In these modern times it has not degenerated in beauty, as the portrait will testify, and in flavour the owner of it will not be disappointed.—T. FRANCIS RIVERS.

NEW POTATOS.

IN the course of some remarks on the novelties among esculents, the *Gardeners' Chronicle* very aptly remarks that "new vegetables are scarce though new names are abundant." The same authority, however, remarks that "Potatos form an exception to the general rule, for here we have decided novelty—decidedly new and improved varieties, produced, moreover, in no haphazard manner, but with considerable skill and definite purpose. There can be no question that if the numbers of varieties of the Potato have increased during the past few years, they have become improved also in appearance, and much more so in quality. The high quality of the new Potatos submitted during the past year, and their fine appearance, were particularly noticeable. Mr. Fenn, the most successful raiser of new varieties, is to be congratulated on the success of his efforts. Our thanks are due to him especially, and to Mr. Alexander Dean, who is a very worthy disciple.

"Of Mr. Fenn's seedlings *Standard* is a very excellent round white. *Fenn's No. 29*, a very handsome pale red kidney, is a most extraordinary cropper, and one of the finest Potatos as regards quality. Mr. Dean's *Lord Mayor* is a rough-skinned round white. *Early Cluster*, a very early half-round white, with a remarkably short top, will prove extremely valuable for forcing. *Cosmopolitan*, the produce of a cross between the American Success and Woodstock Kidney, is early, large, handsome, a great cropper, and of good quality. *Garnett's Seedling*, from Mr. Garnett, is a fine large white kidney. *Foster's Seedling*, a beautiful round, pale yellow-fleshed variety, is also to be noted. *Victoria Kidney* (Edwards), a wonderfully flattened and very distinct form of Paterson's Victoria, is another fine variety. *Fortyfold White* (Farquhar), very much after the Schoolmaster type, is also deserving of notice. *Defiance* (C. Lee & Son) is a large purple kidney, handsome, and stated to be an extraordinary cropper.

"Of American Potatos the number of new aspirants is still as great, and the advance in point of quality equally, if not more, decided. The newer seedlings raised by Messrs. Brownell and Messrs. Rand, and about to be sent

out by Messrs. Bliss & Sons, of New York, are very superior as regards quality to any of those of earlier introduction, as proved in the trial-grounds at Chiswick, the following varieties being specially selected:—*Vermont Champion*, round white; *Iroquois*, oblong white; *President*, round white; *Fremont*, large long white; also of somewhat older date, *Adirondack*, round white, splashed with pink round the eye—a very beautiful variety, almost sure to become a favourite; the *Queen of the Valley*, oblong pale pink; *Matchless* (Hooper), very beautiful rosy-pink, and an extraordinary cropper. *White Elephant* (Daniels) and *St. Patrick* (Veitch) deserve notice also, as being very serviceable and meritorious sorts."—(N. S., xviii., 141.)

VINES AND VINE CULTURE.

CHAP. XVIII.—THE VARIETIES OF GRAPES.

(Concluded.)

THE descriptions of the varieties of Grapes included in our Synoptical Table are here resumed from page 20:—

WALTHAM CROSS (92).—An oval white Vinous Grape.

Vine.—Growth remarkably strong and robust; moderately fruitful. *Leaves* large, deeply toothed.

Fruit.—*Bunches* very large, long and regularly tapering, on strong stalks, evenly shouldered; freely set. *Berries* very large, long ovate, fully larger than those of the Muscat of Alexandria, which it greatly resembles when perfectly ripe. *Skin* thick, pale yellow. *Flesh* firm or hard, sweet, but by no means rich in flavour. Handsome in appearance, and keeps well after ripening.

History, &c.—A seedling raised by Mr. William Paul, of Waltham Cross, about the year 1870. Received a 1st-class Certificate from the Royal Horticultural Society.

Cultural Notes.—Being a late grape, it succeeds best in a house suitable for Muscats, where sufficient heat can be applied to ripen the fruit well. Is not much cultivated.

Season.—Very late; one of the latest grapes in cultivation.

Merits.—Very large and handsome, but quite second-rate in quality.

WEST'S ST. PETER'S (80).—An oval black Vinous Grape. *Synonyms*: Money's West's St. Peter's, Oldaker's West's St. Peter's.

Vine.—Growth very free, but moderately robust. The young shoots firm, and always well ripened; very fruitful. *Leaves* of moderate size, rugose, very deeply toothed, with reddish venations and leaf-stalks.

Fruit.—*Bunches* medium-sized, rather thin, broadly shouldered, on strong but thinnish very wiry foot-stalks; very freely set. *Berries* medium-sized, roundish ovate. *Skin* thin, membranous, very black, and covered with a fine bloom. *Flesh* tender, very juicy, sweet, and at all times remarkably fresh and pleasant.

History, &c.—Some 30 years ago this fine old grape was the best late variety in cultivation, and was extensively planted; at Chatsworth, Frogmore, &c., it is still a leading late grape. A number of spurious varieties at one time existed; hence, to distinguish it, it was by some termed Oldaker's West's St. Peter's, by others Money's West's St. Peter's, &c.

Cultural Notes.—It needs a somewhat warmer treatment than that required for the Black Hamburgh, not so much to set the berries as to ripen the fruit. It succeeds best in a house by itself, and should be grown so as to have the fruit ripe in September; it will then keep well until March.

Season.—Late; improves by keeping.

Merits.—First-class as a late variety, second only in point of quality to Black Hamburgh; the most refreshing of all grapes for invalids.



WEST'S ST. PETER'S.

WHITE FRANKENTHAL (34).—A round white Sweetwater Grape.

Vine.—Somewhat slender in growth, but of good constitution; ripening freely; moderately fruitful.

Fruit.—Bunches below medium size, short, very broadly shouldered; sets freely. Berries medium-sized, roundish. Skin thin, clear greenish white, almost transparent. Flesh thin, watery, sweet but not rich.

History, &c.—Received from M. André Leroy, of Angers, by the Royal Horticultural Society, and has been grown at Chiswick for some years.

Cultural Notes.—Will succeed in any ordinary vinery.

Season.—Mid-season; does not keep well.

Merits.—Third-rate; greatly inferior in every respect to the Black Hamburgh or Frankenthal, of which this is a white prototype.

WHITE FRONTIGNAN (70).—A round white Muscat Grape. *Synonym:* Muscat Blanc.

Vine.—Growth free; of moderately robust constitution; very fruitful. Leaves deeply serrated.

Fruit.—Bunches medium-sized, long, generally cylindrical; very closely and freely set. Berries small or below medium size, round. Skin thin, dull greenish yellow, often much covered with dull russet. Flesh firm, yet juicy, very sweet, rich, and with a strong muscat flavour.

History, &c.—This is one of the fine old varieties of grapes which are now seldom planted, and are becoming neglected, though formerly it was to be found in every collection.

Cultural Notes.—Will succeed well in any vinery. If grown in a warm house the flavour is richer, but it ripens its fruit very well in a cool house; also in fine seasons on the open wall.

Season.—Early.

Merits.—First-class.

WHITE LADY DOWNE'S SEEDLING (96).—A round white Vinous Grape.

Vine.—Growth moderately free; fruitful.

Fruit.—Bunches medium-sized, loose and irregular in shape, some being cylindrical, others shouldered; sets indifferently. Berries medium-sized, round. Skin greenish-yellow, often much covered with dirty russet, which detracts from its appearance. Flesh firm or hard, with a somewhat strong harsh flavour.

History, &c.—Raised by Mr. William Thomson, when gardener at Dalkeith, from a cross between Lady Downe's Seedling and Muscat of Alexandria. A very inferior variety was first sent out under this name, but this being withdrawn, the present variety was substituted.

Cultural Notes.—Requires to be grown in a warm house, with considerable heat to ripen the berries, to have it in good condition. It is not much cultivated.

Season.—Late; one of the very latest of white grapes.

Merits.—Quite third-rate.

WHITE LISBON (93).—An oval white Vinous Grape. *Synonyms:* White Portugal, White Raisin.

Vine.—Remarkably strong and vigorous constitution; very fruitful.

Fruit.—Bunches large, long, somewhat loose; sets freely. Berries large, ovate. Skin thick, greenish-white. Flesh firm, moderately juicy, and sweet, but with no special flavour or character.

History, &c.—This is the white grape so much sold in grocers' shops during the winter. It has been very little grown in this country, but has been fruited several times at Chiswick.

Cultural Notes.—Requires treatment similar to that for the Black Hamburgh, to ripen its fruit well. Keeps well after ripening.

Season.—Late; improves by keeping.

Merits.—Third-rate.

WHITE MUSCADINE.—A synonym of Royal Muscadine: which see.

WHITE NICE (97).—A round white Vinous Grape.

Vine.—Growth remarkably vigorous, producing strong thick wood; moderately fruitful. Leaves

very large, deeply toothed, very downy on the under side.

Fruit.—*Bunches* very large, loose, and straggling, with long thin shoulders; sets freely. *Berries* medium-sized, round. *Skin* thin, membranous, pale greenish-white. *Flesh* moderately firm, juicy, sweet and pleasant to the taste when well ripened, but by no means rich.

History, &c.—This is a very old grape, the name appearing in all the old lists; it is, however, not cultivated to any extent now. There is some confusion between this White Nice and the Syrian, although they are very distinct. Mr. Fowler, of Castle Kennedy, is reported to have exhibited a bunch weighing 17 lbs. 2 oz.; and Mr. Dickson, of Arkleton, others respectively weighing 18 lbs. 7 oz., 19 lbs. 5 oz., and 25 lbs. 15 oz.

Cultural Notes.—Requires treatment similar to that of the Black Hamburg, but takes a somewhat longer time to ripen. Keeps well after ripening.

Season.—Late; improves by keeping.

Merits.—Second-rate.

WHITE PORTUGAL.—A synonym of White Lisbon: which see.

WHITE RAISIN.—A synonym of White Lisbon: which see.

WHITE ROMAIN (12).—An oval white Sweet-water Grape.

Vine.—Growth moderately robust; very free-fruited.

Fruit.—*Bunches* small, broadly shouldered, compact; freely set. *Berries* medium-sized, oval. *Skin* thin, very transparent, pale greenish-yellow. *Flesh* thin, juicy, sweet, and very pleasant.

History, &c.—Received from Mr. Rivers, and fruited at Chiswick. In the *Fruit Manual* it is stated to have been named White Romain, to distinguish it from Muscat Romain, under which name it was imported.

Cultural Notes.—Requires treatment similar to that of the Royal Muscadine; also suitable for orchard-house culture.

Season.—Early.

Merits.—Second-rate; adapted for pot-culture.

WHITE SWEETWATER.—A synonym of Royal Muscadine: which see.

WHITE TOKAY (94).—An oval white Vinous Grape.

Vine.—Growth remarkably strong and vigorous, with a fine free constitution; the young shoots very strong and always ripening well; very free fruited. *Leaves* large, deeply toothed.

Fruit.—*Bunches* above medium size, on strong foot-stalks, regularly formed, having strong shoulders; compact, always freely set. *Berries* large, ovate. *Skin* thick, greenish-white, becoming pale amber-coloured when fully ripe. *Flesh* firm, yet tender and juicy, with a sweet pleasant or sometimes rich flavour.

History, &c.—An old grape at one time much more extensively grown than it is at present, and confused to some extent with the Muscat of Alexandria, which, in the north, used to be called Charlesworth Tokay. Mr. Roberts, gardener to Baroness Rothschild, at Gunnersbury, is cultivating it largely.

Cultural Notes.—Will succeed in any house suitable for the Black Hamburg, but is better if allowed a little longer time to ripen the fruit thoroughly.

Season.—Late; much improved by keeping.

Merits.—A first-class late white grape, very worthy of cultivation.

WILMOT'S HAMBURGH.—A synonym of Dutch Hamburg: which see.

ZANTE.—A synonym of Black Corinth: which see.

—A. F. BARRON, *Chiswick*.

DISBUDDING.

THIS is one of the forms of pruning, and it is practised usually on shrubs or small trees to regulate shape, to induce fruitfulness, to check exuberance. It is a common saying in regard to arresting vicious habits, that they should have been "nipped in the bud." A wild rose in the hedgerow has a strong shoot three or four feet high, and terribly beset with hooked prickles. Now this wilding has perhaps been mistaken for something better, but it was in vain that better things were expected from such a subject, and in the long run five pale petals will be all it can produce in the way of flower; so it becomes clear, when too late, that it should have been nipped in the bud. In the Peach blossom usually three buds are found together, the centre one is a wood bud, which in due time will bring a healthy shoot, and extend the tree; but for this purpose it is of no use to save the flower-buds, for they will not produce either healthy shoots or ripen fruit, since there will be no leaves to draw up sap for them. These, if I may use the expression, will disbud themselves. Now care must be taken to leave foliage if we expect fruit, for although there may be what botanists call adventitious buds, that may arise on the stem or elsewhere, yet these are not fruit-buds and cannot discharge the duties of buds duly matured.

I have scarcely seen an old Pear-tree on a wall that did not stand in need of Disbudding all over, for every foreright shoot that now cumbers the wall would at the bud stage have wanted little but searching out, and the shoots that at midsummer would fill a wheelbarrow might have been carried away in the crown of the gardener's hat without labour and without any litter left behind. The foreright shoots are just the weeds of our wall-trees, and should be treated as such.

So much has been done with the Rose, and done well, that I need not name it, except as an example of Disbudding not to be surpassed,

for here the cultivator cuts out the Dog Rose buds, and inserts in the smooth bark one which eventually produces a blazing bloom of rosy petals, not in single file of five but in thousands, all fair and fragrant as well. It is very rarely that Roses require root-pruning, but they will travel under ground, and rob the better parts of the bush, for the stolons are all robbers and have little in common with the real roots of Rosaceæ. I need scarcely remark that Disbudding gives an excellent opportunity for regulating the form of the tree or bush.

Ringling and root-pruning are devices resorted to when fruit-trees run too much to wood; but this is a far more violent kind of work, and should not be attempted without some good practical man's opinion, lest more harm be done than could be repaired, for all the gum-bearing trees are very easily damaged when the knife is applied to them.—ALEX. FORSYTH.

PEAR JALOUSIE DE FONTENAY.

THIS Pear has also the following synonyms:—*Jalousie de Fontenay Vendée*; *Poire de Fontenay*. There are very few better Pears than this, for it is both handsome and good. It is also one of the oldest of our high-class Pears, and yet it is comparatively unknown. It is not a sensational Pear, but, like the Winter Nelis, it is always good, and every fruit is good. The fruits are somewhat below the size in fashion at the present time, and it has the misfortune to come into use in October, when good Pears are abundant. No one, however, who has ever grown or tasted the *Jalousie de Fontenay* will seek to discard it. We venture to recommend it very highly to amateur cultivators.

M. Decaisne, in the *Jardin Fruitier du Muséum*, states that this Pear was raised near the end of the last century at a small place named Bouchereau, and was subsequently distributed by M. Lévêque as *Poire de Fontenay*. Leroy speaks of having cultivated it in 1841 as *Jalousie de Fontenay*, and subsequently, the better to distinguish it from others named *Jalousie*, the word *Vendée* was added. It has been cultivated in the Horticultural Society's Gardens at Chiswick for a good many years; and about three years ago Mr. Mitchell, a large market-gardener in Essex,

brought me some fruit, which he had been trying everywhere to get named. On seeing the examples of *Jalousie de Fontenay* in the fruit-room he at once recognised his special favourite. The fruit may be described as under the medium size, of a long conical form, very regular in outline; skin covered all over with a bright cinnamon russet, very pleasing to the eye; flesh white, very melting and buttery, sweet, with a slight tinge of acidity; excellent. The tree grows freely on both the Pear and Quince stocks, and is very fruitful.—A. F. BARRON.

SEEDS AND SEEDLINGS.

SOME years ago great difficulty and trouble were experienced in getting up the season's stock of many useful and beautiful flowering and bedding plants with anything like robust health, many kinds, both in and out of doors, utterly failing to grow, or being carried off early without giving the desired effect. I remember the first visit of the Hollyhock disease; four long rows became red and scorched, much as if fire had passed along them. Seedlings are not subject to this disease with us as yet.

I remember also the care and trouble required to rear Cinerarias, every one, except nurserymen and amateurs, depending upon slips and cuttings. Our first lesson of experience came from the rubbish-yard; around the pots placed outside from the show-house sprung a fine crop of seedlings. Now, we mark a few pots of the best for seed bearing, and place them singly in the shade, and from these obtain our stock.

It is hardly possible to overrate the great improvement in seedling Petunias, some of them coming fine and double, with striped and blotched flowers. They make fine showy plants for the conservatory; and every packet of seed will yield great variety. Single bedding sorts come quite true; out of many thousands of Countess of Ellesmere we have not found one rogue. Verbenas are also to be depended upon. Such sorts as the old Defiance and Purple King can be easily got ready by planting-out time, and without an insect on them.

It would be a great gain if our seedsmen would turn their attention to seeding some of

the fine old bedding Calceolarias now almost extinct. There are many other plants, both indoors and out, that are better raised from seed than in any other way. There is more vigour in the plants thus obtained, and there is then no necessity for keeping a lot of stunted plants in pots without effect, since they can be tossed away, and fresh seed sown.—J. FLEMING, *Cliveden*.

ALOYSIA CITRIODORA.

WHETHER plants are grown for their foliage or flowers, perfume is a quality in them highly appreciated by every one; such plants are sure to be favourites. Among these can be classed the fragrant old subject under notice, commonly called the Scented-leaved or Lemon Verbena. Plants that have been kept under greenhouse stages, or in some other convenient out-of-the-way place during winter, should be looked to at once, and the old soil shaken off; if dry, the balls should be soaked before repotting them into a mixture of loam, rotten manure, and sand; the dead wood cut out to make them shapeable; and the plants placed in a heat of 50° or 55° where they can be syringed. When the shoots are a few inches long they can be stopped, and the cuttings put in if it is desired to increase the stock; these will make nice little pot plants for autumn work. The old ones may be planted out in the borders, where they will make good growth for cutting from. During mild winters they will live outdoors, if cut down and covered over with ashes or other protecting material. In Hampshire we had a plant that covered a piece of wall at the end of a vinery, and it was surprising what strong, luxuriant shoots it produced; it had been out some years. *Chamaepeuce diacantha*, scented Pelargoniums, and a hedge of a small-flowered Fuchsia also survived, but how they have fared during the late severe winters I cannot say.—GEORGE POTTS, jun., *Epsom*.

GARDEN GOSSIP.

THE ROYAL HORTICULTURAL SOCIETY held its Anniversary on February 14th. The meeting was thinly attended, and of a prosaic character. Lord Aberdare was again elected President; and W. Haughton, Esq., was selected for the post of Treasurer, and Major

Mason for that of Secretary, the former in succession to Henry Webb, Esq., whose retirement will be greatly regretted, and the latter in succession to Dr. Hogg, who has also done good service to the Society in troublous times. The Council was reconstituted by the election of E. Giles Loder, Esq., J. H. Mangles, Esq., and W. Lee, Esq., to fill up the vacancies occasioned by death and other causes. The report of the Council showed an appreciable gain both in the number of Fellows, and in the year's receipts, notwithstanding that the weather was unfavourable for the exhibitions; the evening fête proved to be a success, and the committee meetings have been well supported and full of interest. The Chiswick garden has been maintained in a high state of efficiency, and much useful experimental work has been carried out there; but it would be well if the results obtained were more promptly published in detail. Among other subjects, Potatoes have received a large share of attention; it is also intended this year to plant a collection of Raspberries for comparison; and other experiments will be instituted in order to ascertain the merits of new varieties of Peas, Lettuces, Tomatoes, and Shallots. In the department of Flowers, the tuberous-rooted Begonias have received much attention, and the Society now possesses one of the best collections of these plants in existence. The large Orchard-house has been devoted to the culture of Tea Roses, and the Rockery near the great Vinery has been considerably extended.

— THE ARTHUR VEITCH MEMORIAL FUND, recently got together by subscription in order to perpetuate the memory of that gentleman, has now been handed over to the Committee of the Royal Gardeners' Benevolent Institution, to be added to the Fund which is being raised by that body for the increase of the amount of Pensions paid by the Institution to Gardeners or their Widows, and which has been designated the Pension Augmentation Fund. The sum thus paid over amounted to £800 14s. 2d.

— THE very useful MANUAL OF THE CONIFERÆ, published a short time since by Messrs. Veitch & Sons, of Chelsea, and already noticed by us, was somewhat marred in its utility by the incompleteness of its index. This defect has subsequently been remedied, the authors having prepared and issued a much fuller enumeration of the contents of its pages, which will render it more acceptable to those who are interested in this class of plants. We believe that purchasers of the book may obtain copies of this more perfect index on application to Messrs. Veitch & Sons, at Chelsea.

— Now few persons know the COTONEASTER FRIGIDA, which rivals, if it does not surpass, the Rowan tree for its profusion of coral and wealth of scarlet tresses; moreover, it is a winter berried plant, coming into beauty through the dull months of November, December, &c., and vying with the Holly at Christmas. We lately saw a plant of this in Mr. BARRON'S nurseries, Sketty, Swansea, which was charming in the extreme; some 15 to 20 feet in height, it formed a big bush; and every branch, some of them 3 feet in length, was laden with bunches of bright scarlet berries of about the size of Currants. The plant is a semi-evergreen of the hardiest description, remarkably quick and free of growth, and will grow anywhere. It should be largely planted both for ornament in the shrubberies and for game cover.—(*Gard. Chron.*, N. S., xvi., 660.)

— **THE** future of APPLE-GROWING FOR PROFIT in a soil and climate which are congenial to the growth of hardy fruits generally, is well illustrated in the gardens at Impney Hall, Worcestershire, where Mr Temple, three years ago, planted a long row of Lord Suffield Apples, the plants costing 1s. each. The trees are now from 6 ft. to 7 ft. or more in height, as pretty specimens of the pyramid type as any one could wish to possess, and have borne good crops of fine-looking fruits. They are planted as a background, to secure privacy for a certain portion of the garden.

— **THE** influence of ARTIFICIAL FERTILISATION was commented on by Mr. Nicoll, of Arbroath, in recently addressing the Dundee Horticultural Association. He stated that Mr. Williams, experimenting on the *Victoria regia*, noted that a flower naturally fertilised produced twenty-five seeds; another, artificially fertilised with its own pollen, yielded sixty seeds; another, artificially fertilised with pollen from a separate flower on the same plant, produced a hundred seeds; while still another flower, fertilised with pollen from a separate plant, produced 300 seeds, or twelve times the number yielded by the naturally fertilised flower. This shows the importance of cross-fertilisation from at least one point of view.

— **THE** AGAPANTHUS AS A BEDDING PLANT deserves a prominent place in every flower garden, its beautiful light-blue flowers and dark green foliage having a very pleasing effect. At Ashford, the seat of Lord Ardilaun, is a bed of it which was formed in April, 1880, with eighteen small plants, which last season produced eighty-seven spikes of bloom, many of them bearing a hundred flowers each. The bed was made of fresh loam, leaf soil, and coarse sand; and on the approach of winter some dry leaves are worked in between the plants, and the whole covered with turfy soil. This covering is partly removed in March, and the plants, which have then made some growth, form, by the middle of June, one mass of rich foliage and flower-spikes.—(*Journ. Hort.*, 3 ser., iii., 359.)

— **IN** order to arrest the progress of the VINE DISEASE IN NEW SOUTH WALES, the Inspector of Vineyards advises the Government to allow no crop of any sort to be grown on condemned ground for ten years, and that all vineyards in infected districts should be at once destroyed.

— **THE** NEW MYRTLE, JENNY REICHENBACH, is a dwarf free-flowering Continental variety, very useful for furnishing stands. It literally swarms with flowers in a young state, and the fragrance emitted from the opening flowers will be very acceptable to ladies.—(*Gard. Chron.*, N. S., xvi., 694.)

— **IN** DRYING NORFOLK BEEFING APPLES Mr. Culverwell tells us patience is necessary. The Apples should be large and firm; they should be pricked well with a large needle; then roasted in an oven just sufficiently hot to cook them without bursting. They must then be allowed to get quite cold, be flattened a little with the finger and

thumb; and be returned to the oven—not too hot—for a couple of hours. Repeat the flattening and drying as often as is necessary—three or four times will be generally sufficient; this usually takes three or four days, as they must be cold each time. The great secret in doing them well is nicely roasting the Apples in the first place.—(*Gard. Chron.*, N. S., xvi., 763.)

— **AS** a POTTING MATERIAL FOR ORCHIDS, Mr. Turnbull, of Bothwell, has it seems utilised with great advantage some waste material. Many years since, observes a writer in the *Gardener* (1881, 568), Mr. Turnbull grew some specimens of certain Orchids, such as *Miltonia*, to the greatest perfection. The potting material used consisted chiefly of the tough roots of *Luzula maxima*, which plant, the writer believes, was top-dressed with leaf-mould, to encourage it to make masses of fibry roots for potting with. Those growers on a small scale who cannot conveniently get sphagnum, fibry peat, or other orthodox material, might find this worth making a note of.

— **THE** RHODODENDRON AVENUE at Tynninghame—the Garlston Walk, or Lord Thomas's Rhododendron Avenue—was originally a spacious avenue, a mile and a half in a straight line. It has now been planted with Rhododendrons, most of them hardy Indian varieties, many of which have grown to the large proportions found on the slopes of the Himalayas. Even during the autumn season, with their dark, glistening foliage, they present a magnificent appearance; but when the plants are in flower the walk must be a glorious spectacle.

— **THE** TRANSPARENT GAGE is one of the most delicious Plums in cultivation, not surpassed even by that popular and excellent champion, Green Gage, whereas it is far superior to the latter as regards cropping qualities. There are standard trees here, writes Mr. Scott, of Herriott, which never fail to give a fair crop (and most years an abundant crop) of medium sized, prettily marked, and deliciously flavoured fruit, having skin so transparent, that by holding it up to the light, the texture of the flesh and even the stone itself may be seen.—(*Gard. Chron.*, N. S., xvi., 686.)

— **A** BLUE CHINESE PRIMROSE, or a near approach to it, has been sent to us by Mr. Cannell, of Swanley. The flowers are large and well-shaped, of a bluish shade of mauve colour, making the nearest approach to a blue which we have as yet seen amongst the Chinese Primroses. From the appearance of this, and of Carter's Holborn Gem, which is of nearly the same colour, we may expect eventually to obtain a true blue.

— **A** PRESENTATION has recently been made to Mr. G. BAKER, of Coombe, by the members of the United Horticultural Benefit and Provident Society, on the occasion of his retirement from the office of Treasurer of that Institution, which he has held for the last twelve years. The testimonial consisted of a Silver Tea-pot, Sugar-basin, and Cream-jug.

— **FOR** room decoration, MINIATURE CHRYSANTHEMUMS may be obtained by select-

ing good branching shoots about 18 inches long, bearing as many expanded blooms as possible, and inserting these in 5-inch pots, filled full of sand, and dipped in water until all air bubbles cease. The base of each is supported with a neat green stake, and the pots mossed over and watered through a rose. Treated in this manner they stand quite fresh for a fortnight when well supplied with water.—(*Gard. Chron.*, N. S., xvi., 793.)

— THE value of *EUPHORBIA FULGENS* (*jacquiniiflora*) for winter decoration is well known, its brilliant orange scarlet "flowers" being extremely showy. At Chiswick Mr. Barron flowers it in pans with excellent effect. His method of procedure is to turn out of the cutting pots the firmly rooted cuttings that are full of bloom, and to place the contents of some half-dozen pots in a large pan; the plants being under two feet in height, and, being heavily laden with bloom, they form in the pan a compact and very effective mass, much more presentable than the long straggling plants one usually meets with. Of this plant J. G. writes in the *Field*:—"We have a large bush that was planted to train on one end of a stove house; but as its roots got out of its confined compartment, it soon showed signs that it wanted more head room, so we cut away its ties and let it grow at will, and a surprising quantity of bloom this one plant has produced; and as the long wreaths are cut off they rapidly send out lateral shoots that flower equally as well as the first, or ripened wood. I can especially recommend any one having large demands for winter flowers to adopt the planting-out method of culture, and the free or natural mode of training."

— MR. G. F. Wilson has recently bloomed the *TECOPHILÆA CYANOCROCUS*, and received a 1st-class Certificate for its production from the Floral Committee of the R.H.S. It is a charming little bulbous Irid from Chili, flowering in spring, and reputed to be nearly or quite hardy. It grows only a few inches in height, has narrow leaves and erect bell-shaped flowers of an intensely deep blue with a light centre. Mr. Wilson bloomed his plant, which was growing in a pot, in an unheated Orchid-house, in which the pot was plunged in ashes in a *Lilium auratum* case. M. Max Leichtlin, from whom it was received, advised that it should be kept cool and airy; "a little frost will do no harm, but the greenhouse is too close and warm." Mr. H. J. Elwes has flowered it for several years planted out under glass in a cold pit.

— WRITING of the KERRY PIPPIN APPLE, Mr. Culverwell observes that it cannot be grown too much in northern districts; it is always good in quality—the townits tell you that, for they have a special liking for it. The fruits are rather small, of a bright golden colour, often mixed with little red streaks next the sun, which makes them handsome as a dish for early autumn use. I sent a bushel of them on to the moors for the Liberal member of the North Riding of Yorkshire and his family in the early part of October, and they say it was the greatest treat they ever had in the way of an apple feast. No garden should be without a Kerry Pippin tree or two; on the Paradise stock it is a great bearer.—(*Gard. Chron.*, N. S., xvi., 816.)

— IN a note on FROST-RESISTING PLANTS which are sometimes found amongst the most

unlikely subjects, J. G. L. states that during the past summer he edged a large vase with the ordinary green form of *Tradescantia*, and it made a beautiful trailing fringe hanging over the edge nearly a yard all round; as it resisted the first rather sharp frosts in October with impunity, it was left to test how far it would live through the winter. During the long spell of mild weather in November and the early part of December, it grew away as vigorously, as if it had been in a stove; but though the frosts in Christmas week have checked its growth, and cut some of the leaves, yet, unless we get more severe frosts, it looks as if it will survive the winter, although the thermometer has been down to 25 or 27 degrees on three or four occasions.—(*Field*.)

In Memoriam.

— MR. WILLIAM HURST, head of the firm of Hurst & Son, seedsmen, formerly of 6, Leadenhall Street, now of 152, Houndsditch, died on February 11th, in his 52nd year. By his death the London Seed Trade loses one of its foremost representatives. Entering the business at the early age of 14 years, Mr. Hurst gradually made himself master of its many details, and for a number of years represented the firm in the country, taking periodical journeys. In this way he made himself widely known and much respected. On the death of his father in 1868, he became the head of the firm, and during the last twelve years there has been a marked extension of business both at home and in the colonies. About three years ago, Mr. Hurst became afflicted with an illness which brought on a partial loss of sight; and recently the malady took a more aggravated form, which resulted in death. The business, which has been conducted during his long illness by his brother-in-law Mr. N. Sherwood, and Mr. J. S. Johnson, will be continued by them as before.

— M. JOSEPH DECAISNE died in Paris on February 8th, in his 75th year. He was by birth a Belgian, but in early life became attached to the Museum of Natural History in Paris, at first in the capacity of gardener, and subsequently as one of the assistant naturalists; he was the pupil and friend of Adrien de Jussieu, and succeeded M. Mirbel as Professor of Culture and Director of the Garden, in which capacity he superintended the publication of the magnificent Pomological work *Le Jardin Fruitier du Muséum*, his observations being for the most part made from the living trees planted by his predecessor, M. Thouin. M. Decaisne was also the author of numerous memoirs on garden plants, and, in conjunction with M. Thuret, made those discoveries in connection with the organs of seaweeds (*Fucus*) which have revolutionised our knowledge of the fertilisation of these plants. Among other botanical subjects the structure of the Pomaceæ received his especial attention, and to him we are indebted for the knowledge of the fact which is now generally accepted, that the edible portion of the fruit of these plants is the swollen and succulent tip of the flower-stalk. By the death of this eminent naturalist, the science of Botany loses one of its profoundest exponents and of its brightest ornaments; and the fact that he commenced his career as a young gardener, and ended it as Director of the Jardin des Plantes, and President of the Academy of Sciences, should encourage and stimulate to the utmost those of our young horticulturists who aspire to raise themselves above the common level.



PHALÆNOPSIS STUARTIANA.

[PLATE 559.]

TO the Messrs. Low & Co., of Clapton, we are indebted for the opportunity of figuring this beautiful new Butterfly-plant, which they have recently imported from the East.

It has been named by Professor Reichenbach in compliment to Mr. Stuart Low, and, as will be seen by our illustration, well merits the attention of our orchid growers.

It has been suggested that this plant may be a natural hybrid; but, whether this be so or not, it is evidently allied to *Phalænopsis Schilleriana*, with which it agrees in the general structure of its flowers, and especially in the anchor-like tails of the lip.

The habit of the plant is that of other *Phalænopsids*, that is to say, it is stemless, with a tuft of leathery leaves, and large branching panicles of showy flowers. The plants cling to their supports by means of their flattened roots; the leaves are ligulate oblong acute, channeled, distichous, equitant at the base, the under surface purplish red, the upper surface marbled with transverse grey

blotches, which disappear with age; the scape springs from the base, and bears a many-flowered branching panicle of lovely blossoms—as many as 120 having been counted in one panicle on a three-leaved plant. The individual flowers are of medium size, cream-coloured at first, becoming white when fully blown, the lower half of the lateral sepals being bright yellow thickly dotted with cinnamon-red, the side lobes of the lip being similarly coloured, except at the top, where they are white; the callus is orange-coloured, and the middle or front lobe sulphur-coloured, less thickly spotted with red.

A very fine variety named *Phalænopsis Stuartiana nobilis* has also been flowered by Messrs. Low. In this, the flowers are larger in all their parts; the anterior lobe of the lip is rhombic with broader laciniae at the top, and the callus orange-coloured.

This is a fine addition to the now somewhat numerous species and varieties of *Phalænopsis* which exist in our collections, and will no doubt secure many admirers.—T. MOORE.

TEA ROSES IN POTS.

THE portability of Pot Roses is one of their chief merits. It enables the cultivator not only to select the time, but to appoint the place of flowering.

It is impossible to exaggerate the importance of these advantages, especially to amateurs and florists. The majority of these are cramped for space, their zeal not seldom being in the inverse ratio to their convenience. But half a dozen, a dozen, a score or more Tea Roses may be packed in almost anywhere, anyhow, and it is astonishing how much sweetness and beauty may be reaped from very small areas. Besides, the portability afforded by pots gives the utmost possible control over the time as well as the place of flowering; they may be placed in or taken out of heat at will, and so be had in flower at any season when wanted. And if all this is true of roses in general, it is far more true of Tea Roses, which may be had in flower all the year round with a little management. For Tea Roses are the true successors of the real Monthly or China Roses, and are

endued with the power of continuous growth and perpetual blooming. By resting these in the usual way, we simply lose time as well as flowers, and not seldom sacrifice health and strength into the bargain.

Tea Roses are naturally evergrowing as well as evergreen. Feed them liberally, or place them under genial conditions, and they will go on yielding harvests of fragrance and beauty in perpetuity. It is not kindness but cruelty to them to allow the biting frosts and piercing winds of our climate to check and arrest their progress. Should any check be needed, the partial withholding of water for a time affords all that is safe or good for them. But as a rule no checks are wanted. Why, indeed, should an evergrowing evergreen everflowering plant like a Tea Rose be checked? Why indeed? Cultivators have much to learn, or rather unlearn, on the checking of plants. Natural phenomena, accidental circumstances, mostly furnish checks in excess. It is more the business of the cultivator to foster than to

hinder growth, and in the case of Tea Roses they so speedily respond to our fostering care, and thrive so well under it, as to show that it agrees with them.

This brings us to another immense advantage brought within our reach by the pot culture of Tea Roses. It enables us to provide an atmosphere best adapted for their growth and flowering. A temperature ranging from 55° to 65°, with a free circulation of air, and a genial atmosphere, suits them well. Under such conditions four or more harvests of bloom a year are brought within reach. The word harvest may, however, be rather misleading. There may be less of any given number of full harvests, than a continuous and constant display of beauty; for hardly have one set of blooms begun to fade before another set has begun to show bud, or to open. This is very much the case in a greenhouse, conservatory, or window garden, but it is still more so in such temperatures as are here recommended.

No doubt a good deal depends on treatment as well as temperature. Continuous growth and blooming demand continuous care and liberal feeding. The plants should never once be allowed to flag, nor to suffer from insects, overcrowding, or neglect of any sort. Fully exposed to light and air, carefully watered and promptly pruned at any moment when wanted, without waiting for a general pruning, the roses will go on growing and blooming for almost any length of time. Should any particular plant grow too vigorously, or yield but little flower, it may easily be starved into more floriferous ways by a partial withholding of water, or full exposure to the sun in the open air. But as a rule, even such checks will seldom be needed. Flowers succeed growth in Tea Roses almost as certainly as day follows night, and hence the means used to ensure growth will likewise ensure continuous blooming.

As to training, almost the less of it, and the less formal the better. Any approach to a bush or a pyramid will answer well, but stiff prim training is hardly consistent with perpetual flowering.

As to varieties, almost any of the more floriferous Teas will do. The following, however, are among the best for this purpose:—

Gloire de Dijon, Adam, Anna Ollivier, Belle Lyonnaise, Devoniensis, Innocente Pirola, Madame Falcot, Madame Trifle, Madame Welch, Madame Villermoz, Marie Sisley, Niphotos, Perle des Jardins, President, Rubens, Safrano, and Souvenir d'Elise Vardon.—D. T. FISH, *Hardwick Hall*.

THE SWAN DAISY.

BEAUTIFUL is the *Brachycome iberidifolia*, to which Dr. Lindley upwards of thirty years ago gave the appropriate name of Swan Daisy, and of which he remarked that it is "one of the handsomest hardy annuals in cultivation—which further experience has amply confirmed. For all that, it is much too seldom met with in the gardens of the multitude, and we are glad to have the opportunity of introducing here one of MM. Vilmorin's characteristic little woodcuts, in order to show what a really charming thing it is. It was called Swan Daisy from its being a native of the Swan River Colony, now absorbed in Western Australia, and from the resemblance of its flowers to those of the daisy, from which it is distinguished botanically chiefly by the membranous border of the more imbricated scales of its involucre. None of the coloured figures of *Brachycome iberidifolia* do justice to the attractiveness of the plant itself, that published by Dr. Lindley, which is the best in other respects, being much too dull in its colouring.

Brachycome iberidifolia is a neat-habited, diffuse branching, annual plant, growing from nine inches to a foot high, with the leaves pinnatifid, that is, cut down deeply on each side into segments, which are narrow and pointed, and producing in terminal corymbs the cineraria-like blossoms, about an inch broad, which have a purplish-brown nearly black disk, surrounded by a single row of ray florets, which are of a deep violet blue in some plants, varying to lilac, pink, and white; the blue, however, generally predominating. In some of the seed-shops both the white-flowered and rose-coloured variety may be had separately from the blue.

The cultivation of the plant is easy. It belongs to the half-hardy class, and likes good but light soil; on such, if the situation be

warm, it may be sown out of doors in April, and will flower during the later summer months. If not favourably situated, it is best sown with other half-hardy annuals on a sheltered bed, with or without gentle bottom-heat, and planted out when sufficiently advanced. To obtain earlier flowers sow towards the end of February in a warm pit, pricking off the young plants when large enough, removing to cooler quarters before they begin to draw up spindly, and



BRACHYCOME IBERIDIFOLIA.

gradually inuring to bear first the cold frame, and then full exposure, before being finally planted out in the beds or borders. Being of branching habit they continue for a long period in blossom.—T. MOORE.

WHITE TOKAY GRAPE.

MR. BARRON says truly that this Grape was much more extensively grown formerly than now. According to my experience the cause of this is the frequent cessation of Pine growing. It was formerly planted in almost every Pine stove or succession house, and it may be exists in many still, but the doing away with Pine-apples removed the necessity for keeping up so high a temperature, besides being considered a reason for moderating the outlay on fuel. The White Tokay is by far the finest late White Grape in cultivation, and can be had as late as any Black Grape. I have had it

so late that it has become dried and brown like raisins, and it was then excellent in flavour. This is a form many of the late Black Grapes can never assume, as they are mere bags of water, and only grapes in name. It must have great heat otherwise it remains white and tasteless, often shrivelling, but with plenty of dry heat it becomes, as Mr. Barron says, of a rich amber colour, with crisp flesh, and a brisk Muscat flavour. It was always a great favourite with good Grape growers.—J. FLEMING, *Cliveden*.

SULPHUR FUMIGATION.

IT is a well-known fact that sulphur fumes are most destructive to animal and vegetable life, especially to the latter when the plants are in an active condition and the foliage is luxuriant. But when fruit-trees are at rest sulphur burnt among them sufficiently strong to kill insect life does them no harm, and is an easy method of eradicating old "stock" and their progeny, which would be likely to prove troublesome during the coming season. We have often used sulphur in this way in vineries and peacheries as a preventive. How far it may be used to effectually exterminate mealy bug or scale I am not prepared to say; but a gentleman who has extensive glass structures told me lately that he had thus cleared his vines of mealy bug in the most satisfactory manner without injury to the plants. He was first led to experiment in his vineries from advice given by a bricklayer who came to put the flues in order. The latter saw how much trouble was given by the bug, and how much labour was expended with unsatisfactory results, and he suggested that a clearance of the pest might be made in the same way as was sometimes resorted to in the case of "insects" which had to be dealt with in dwelling-houses. He was allowed to go to work with a shovelful of fire, over which the sulphur was thrown, and allowed to burn till the house seemed filled with the fumes. No bugs have been seen there since, and the vines are as vigorous as ever; but as to what was the real proportion of sulphur burnt to each cubic foot of space within the structure I suppose the bricklayer alone could give correct data. If any one can give further information regarding the burning of sulphur in fruit-houses it would be thankfully received. The danger in using burning sulphur is great.—M. T.

REGISTER OF NOVELTIES.

NEW PLANTS.

ASPARAGUS PLUMOSUS NANUS, *Hort.*—One of the most elegant of decorative plants for the stove or warm conservatory, a native of South Africa. The slender tufted gracefully arching stems throw out in all directions from the upper portions the bright green branches, which are finer than the fronds of the most delicate fern. For bouquets the cut sprays are more effective and enduring than ferns. 1st-class Certificate R.H.S., June 22, 1880, at the Great Exhibition at Manchester, August, 1881; and at R.B.S., March 29, 1882.—Veitch & Sons.

ASPARAGUS TENUISSIMUS.—A semi-scandent South African plant, of a strikingly elegant character, adapted for the warm conservatory. It is of a lighter green than *A. plumosus*, and the foliage is remarkable for its extreme tenuity and its delicate appearance. It is a beautiful adjunct to a bouquet, and has the advantage of keeping well in water. It makes an extremely beautiful specimen plant; 1st-class Certificate R.H.S., April 26, 1881, and R.B.S., April 27, 1881.—Veitch & Sons.

BRIZA SPICATA, *Sibthorp.*—A neat-habited annual Totter Grass, growing from eight inches to a foot high, and having the ovate spikelets, which are about the size of those of *Briza media*, attached by short stalks so as to produce a narrow linear-oblong or spike-like inflorescence. It comes from Greece and Asia Minor.—Haage & Schmidt.

CŒLOGYNE GLANDULOSA, *Lindl.*—A very neat and elegant Orchid from the Nilgherries, having ovate sulcate pseudobulbs, oblong lanceolate leaves, and a nodding raceme of pure white flowers $1\frac{1}{2}$ inch in diameter, with the front lobe of the lip ovate marked on the disk with yellow lines.—Mrs. Russell Sturgis.

CYPRIPEDIUM INSIGNE PUNCTATUM VIOLACEUM, *E. G. Henderson (Gardener, 1882, 58, 142).*—The finest of all the forms of this very useful ornamental Orchid. The flowers are large, the upper sepal broad and flat beautifully spotted with purple on a white ground, a small portion at the base pea-green; lip shorter and darker than in other forms; a seedling raised by Mr. O'Brien at the Pine-apple Nursery, and sent out about 1869.

DAVALIA ELEGANS POLYDACTYLA, *Moore.*—A distinct and handsome evergreen stove fern, resembling *D. elegans* in its general habit and appearance, but differing in the many-fingered dilated apex of the frond, and of the pinnae, which are all multi-fidly divided or crested in such a manner as to give the plant an extremely ornamental character. It is a sport raised from spores in Messrs. Veitch's nursery; 1st-class Certificate R.H.S., April 26, 1881, and R.B.S., April 27, 1881.—Veitch & Sons.

DELPHINIUM AZURUM ALBUM.—A fine hardy North American perennial, with tuberous roots, erect stems two to three feet high, large deeply 3—5 parted leaves, the divisions of which are cleft into narrow lobes, and long wand-like racemes of creamy-white very effective flowers. It is quite hardy, and of easy culture.—W. Thompson.

DENDROBIUM LEECHIANUM, *Rehb. f. (Gard. Chron., N. S., xvii., 256, fig. 35; Journ. Hort., 3 ser., iv., 233, fig. 45).*—A very handsome and most desirable hybrid Orchid, raised by Mr. Swan, in the garden of W. Leech, Esq., at Fallowfield. It is the result of a cross between *D. nobile* and *D. aureum* (*heterocarpum*), and bears some considerable resemblance to *D. Ainsworthii* and *D. suavissimum*, which were the separate results of two similar crosses. It was raised in 1876, and is remarkable for its free-blooming habit, young stems of four to six inches

high blooming abundantly. The flowers are fully three inches across, white with all the parts tipped heavily with bright rosy purple, the sepals being oblong, and the petals broader and more ovate with a distinctly wavy margin; the expanded lip has the whole of the disk or basal portion occupied by a dark maroon crimson blotch, which at the edges breaks out into numerous lines or stripes of the same colour extending towards the margin. The flowers are very fragrant.—W. Swan.

GALEANDRA NIVALIS.—A very rare and interesting epiphytal Orchid, with erect spindle-shaped stems or pseudobulbs of a glaucous green colour, linear-lanceolate leaves, and a nodding raceme of flowers, in which the sepals and petals are narrow, reflexed, and of a rich olive tint, while the funnel-shaped lip with its singular basal spur has the anterior portion expanded into a broad squarish flat lobe, which is white with a central rosy-purple bar or stripe.—Sir T. Lawrence.

GYNURA AURANTIACA, *De Candolle (Illust. Hort., t. 436).*—A new soft-wooded composite, likely to be an attractive object in modern summer bedding arrangements where a bold habit and richly coloured foliage are desired. The beauty of the plant is to be sought in its coloured hairs. The stout stem and broad leaves are clothed with dense soft hairs, which are of a deep violet-purple, and on a side view give the surface the appearance of the richest velvet. The flowers are of a brilliant orange colour.—Compagnie Continentale d'Horticulture.

IXORA WESTII, *Hort. Veitch.*—A very fine and distinct hybrid, raised from *I. odorata* crossed with *I. amboinensis*, by Mr. West, one of Messrs. Veitch's foremen, after whom it is named. It is a stove shrub of good habit, with leaves of intermediate character and large subglobose trusses, 4—6 inches in diameter, of pale rose flowers, which with age become a clear bright rose; a novel, showy, and very desirable stove flowering plant; 1st-class Certificate at the Great Exhibition at Manchester, August, 1881.—Veitch & Sons.

KEMPFERIA GILBERTII.—A stove perennial of deciduous habit from the fleshy roots of which are produced in a tufted manner the oblong-lanceolate deep green slightly undulated leaves which are bordered by an irregular margin of white, such as occurs in some of the Funkias. The showy flowers are purple and white. A native of India.—W. Bull.

NERINE EXCELENS, *Moore.*—A handsome greenhouse bulb, of hybrid origin and of the easiest culture. The leaves are of a bright green more than half an inch wide and of the usual linear-oblong or lorate form. The flowers are freely produced, $2\frac{1}{2}$ —3 inches across, and grow in umbels of about nine together, the declinate oblong acute undulated perianth segments being reflexed, of a bright rosy pink with a bright carmine-crimson stripe or rib in the centre.—W. Bull.

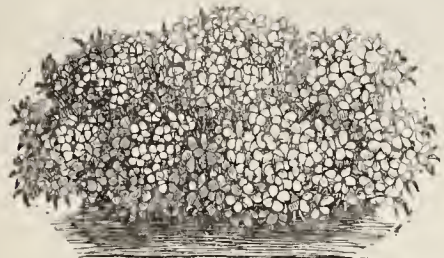
ODONTOGLOSSUM CRISPUM STEVENSII.—One of the grandest varieties of *O. crispum* (*Alexandra*) which has yet been seen. The flowers are large, three inches across, with oblong-lanceolate sepals, and petals similar in form but wavy at the edges, the lip oblong and crisped, all the divisions being white and heavily barred with light cinnamon brown, the lip having also a clear yellow disk; a very beautiful form; 1st-class Certificate R.H.S., March, 1882.—Z. Stevens.

GENOTHERA ALBICAULIS, *Nuttall (Gartenfl., t. 1041).*—One of the most beautiful of the Evening Primroses; it has a perennial running rootstock from which grow up the erect stems 12—15 in. high, forming compactly branched bushes, which are covered with linear lance-shaped leaves, and large fragrant flowers, 2—3 in. across, opening white and

changing to pink; these are produced in profusion from July till late in the autumn. California.—Haage & Schmidt.

ONCIDIUM FUSCATUM ALBUM.—A very pretty and distinct variety of this showy Orchid, in which the flowers have a broad white lip marked in the centre with a conspicuous lilac blotch.—Veitch & Sons.

PHLOX DRUMMONDII HORTENSIEFLORA ALBA.—A close-growing compact dwarf form of the beautiful *Phlox Drummondii*, remarkable for its large heads of pure white blossoms. The raisers remark that this is "undoubtedly the showiest and most beautiful pure white *Phlox* introduced up to the present time." See accompanying figure.—Haage & Schmidt.



PHLOX DRUMMONDII HORTENSIEFL. ALBA.

RHODODENDRON DUCHESS OF CONNAUGHT, Hort. Veitch.—One of the charming hybrids of the *jasminiflorum* type. It is of a good free habit of growth, and produces compact globular trusses of flowers, which are of great substance, and of a bright rich glowing red colour; 1st-class Certificate R.H.S., July 26, 1881, and also at the Great Exhibition in Manchester, August, 1881.—Veitch & Sons.

RHODODENDRON EXCELSIOR, Hort. Veitch.—A fine greenhouse evergreen shrub, of free bold habit, and of hybrid origin, being the result of a cross between *R. javanicum* and *R. Princess Royal*, the foliage resembling that of the former; it produces large compact trusses of pale buff or nankin flowers of a lustrous tint, pretty and bright; 1st-class Certificate R.H.S., March, 1882.—Veitch & Sons.

RHODODENDRON MONARCH, Hort. Veitch.—A handsome hybrid greenhouse evergreen of the *jasminiflorum* type, the result of a cross between *R. Princess Alice* and *R. Duchess of Edinburgh*. It resembles *R. Excelsior* in habit and foliage, and produces dense heads of salmony buff flowers, very fine and striking in character; 1st-class Certificate R.H.S., March, 1882.—Veitch & Sons.

ROSANOWIA ORNATA, L. Van Houtte (Flore des Serres, tt. 2423-4).—A very beautiful hybrid Gesneriad raised from *R. (Biglandularia) conspicua* crossed with a bright red variety of *Gloxinia*. The plant is of erect branching habit, with red somewhat slender branched stems, bearing ovate green leaves with red veins, and a profusion of large deflexed gloxinia-like flowers, delicately banded outside the curved furrowed tube and at the edges of the two upper limb segments with rose-pink, and thickly lined with crimson on the gibbous lower side of the throat, where the ground colour is pale yellow.—Van Houtte.

NEW FLOWERS.

ABUTILONS.—*Cloth of Gold*: clear pale gold, the clearest and deepest shade of yellow yet seen; good form and free blooming; 1st-class Certificate R.H.S., March, 1882. *Criterion*: maroon-red, a distinct and good variety. *Dazzle*: bright deep red, free and of good shape; very effective. *Emperor*: in the way of *Criterion*, but rather deeper in colour. *Enchantress*: pale rosy pink, pretty and attractive. *La Grande*: bright crimson red, distinct and very attractive, of good form and free flowering, more so

than is generally seen in the *Abutilon*; 1st-class Certificate R.H.S., March, 1882. *Lustrous*: pale fiery red, good shape; a promising decorative variety. *Magnet*: clear bright red, very good and striking. *Mrs. Garfield*: silvery-pink, very large flowers and widely expanded cup. *Orange Gem*: orange-red, a novel hue of colour, expanding flowers. *Splendour*: bright red, one of the clearest in colour, very showy. *The Bride*: pale fleshy pink, very pretty and distinct.—All raised by J. George.

AMARYLLIS.—*Baron Schröder*: a finely formed variety of an intense crimson; green at the base of the tube; very striking and extra fine; 1st-class Certificate R.H.S., March, 1882. *Charles Dickens*: a very handsome variety, the flowers of a crimson-scarlet marked with a clear white bar on the centre of each segment, large and well expanded; 1st-class Certificate R.H.S., March, 1882. *Duchess of Connaught*: flowers creamy, almost pure white; a fine variety giving a near approach to a pure white *Amaryllis*; 1st-class Certificate R.H.S., March, 1880; do. R.H.S., March, 1882.—All raised by Veitch & Sons.

CHRYSANthemum (JAPANESE), George Gordon.—A seedling from the very popular variety named *Elaine*, of very free habit, with flower-beads of a deep crimson colour.—W. Holmes.

CINERARIA, Mr. Cullingford.—A rich magenta crimson self of fine form, with a pale disk, but striking in colour; 1st-class Certificate R.H.S., March, 1882.—Cannell & Sons.

CYCLAMENS (PERSICUM).—*Crimson Gem*: a very fine large-flowered variety with ruby-crimson flowers of fine form and substance; 1st-class Certificate R.H.S., March, 1882. *White Gem*: undoubtedly the finest white-flowered variety yet raised, large in size and very pure in colour; 1st-class Certificate R.H.S., March, 1882. *Rose Queen*: pale rose, large and very free; 2nd-class Certificate R.H.S., March, 1882.—All raised by H. Little.

FUCHSIAS.—*Expansion*: bright rose with bluish-purple corolla, widely expanded. *General*: deep rose, with large double violet corolla flaked with rose. *Gerald*: rich crimson with large expanded purplish-crimson corolla. *Imperial*: bright rosy carmine, with huge corolla of a glossy plum-colour flaked with pink. *Marvellous*: deep rose, double rosette blue corolla. *Matchless*: crimson, rich purple corolla striped with rose. *Minstrel*: bright rosy crimson, the corolla full double ivory-white, striped with rose at the base. *Monument*: rosy-crimson, with double corolla deep purple striped with rosy-carmine. *Startler*: deep crimson, with double broadly expanded corolla, purple flaked with rosy-carmine. *Tulip*: crimson, with the large expanded tulip-shaped corolla purple.—All sent out by W. Bull.

PELARGONIUMS (ZONAL).—Mr. Pearson offers this year the following novelties:—*Amy Kohn*, rosy magenta; *Bianca*, white; *Brunhilda*, scarlet, white eye; *Clytie*, scarlet shaded with magenta; *Imogen*, salmon; *James McIntosh*, crimson, white eye; *Jessie Moir*, rose; *Kate Farmer*, salmon; *Mrs. Miller*, dark crimson; *Nelly Thomas*, crimson; *P. Neill Fraser*, vermilion; *W. H. Williams*, dark scarlet shaded with magenta, white eye; *Zelia*, magenta.

The following are also now being sent out:—*Crimson Vesuvius*, a sport from the well-known *Vesuvius* of the same excellent habit, the trusses of flowers larger, and the colour a crimson-scarlet, distinctly deeper in hue than the old type, and likely to take a high place as a bedder.—Hender & Sons. *President Garfield*, also a sport from *Vesuvius*, the flowers a brilliant scarlet like Jean Sisley, with a large white eye.—Hender & Sons.

PINKS.—Of Show Varieties Mr. J. Forbes catalogues

the following:—*Adonis* (Paul), dark red lacing, large; *Crossflat Gem* (Paul), narrow purple lacing, large, full, extra; *Duke of Edinburgh* (Downie), clear rose lacing, broad petals; *Henry Cannell* (Paul), broad purple lacing, large, fine; *Janet Cochrane* (Paul), rosy purple lacing; *Malcolm Dunn* (Downie), heavy lacing of maroon, extra; *M. Campbell* (Paul), dark red lacing, fine; *Mrs. W. Persse* (Paul), dark purple lacing, very double, fine.

PRIMULA SIEBOLDII.—Many interesting varieties of this fine decorative hardy plant are now in cultivation, and of these the following are now offered:—*Charmer*, soft delicate mauve, stout flowers; *Hermia* (Allen), rosy lilac, distinct and pleasing, free; *Rosalba* (Allen), rosy pink, pleasing, and quite distinct; *Ophelia* (Allen), bright lavender, very fine form; *Purpurea*, bright mauve purple, large and very effective.—R. Dean.

ROSE (Hybrid Tea), EARL OF PEMBROKE.—One of the new Shepperton hybrids, and a flower of great promise; the blossoms have a most exquisite perfume, and are sufficiently large and full, the colour being a bright cherry crimson of much brilliance and richness.—H. Bennett.

NEW VEGETABLES.

CAULIFLOWER, Dean's Early Snowball.—An invaluable dwarf cauliflower, with large and fine white heads, ready to cut in four months from the time of sowing, and yielding a supply from May till the late summer varieties come in.—Nutting & Sons.

CELERY, Wright's Grove Pink.—This is regarded as a very early variety. It is of a bright pink colour, grows straight and stout, and is both crisp and sweet. In bulk it is a trifle larger than Grove Red.—Nutting & Sons.

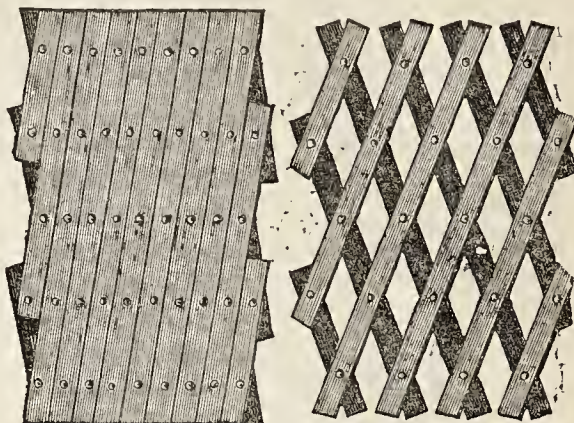
CUCUMBERS.—*Chesterfield Hero*: a cross between the Telegraph and the Manchester Prize, of fine quality, and growing to an average length of 18 inches, but often attaining to 2 feet; the fruit is smooth, in appearance like Tender and True, but is said to be more productive. It has taken two 1st prizes at local shows. *Pettigrew's Cardiff Castle*: this is said to be one of the best sorts in cultivation for either summer or winter crops. The fruit is of handsome shape, of a rich green colour, and grows 18 to 20 inches long, three or four being produced from a joint.—Both offered by Nutting & Sons.

POTATO, Victoria alba (Donaldson).—A fine new main crop round white variety, raised by Mr. Donaldson, gardener to the Dowager Countess of Kintore, as a seedling from Paterson's Victoria, from which it is quite distinct, having a pure white flower. Its tubers are rounded, smaller in the eyes and neater, its flesh is whiter and of finer quality when cooked, and it is a heavier cropper. 2nd-class Certificate R.H.S., 1881; 1st prize at Great Potato Show at Inverness.—Nutting & Sons.

NEW APPLIANCES.

GARDEN TRELLIS.—The accompanying figure represents a new folding wood lattice, intended for garden use in the form of bordering, trellises, &c., and which, being produced by machinery, admits of being sold at a low price. It will last for several seasons, and when not in use during winter it can be closed up for convenience of stowage. It is recommended as suitable for pea or bean training, and as making a capital boundary for side walks in gardens, where it can be used for training fruit-trees, tomatoes, sweet peas, and other creepers. It is made in pieces of 50 square feet when open, measuring 10 ft. by 5 ft., but will stretch longer if kept narrower. When closed up it measures 6 ft. 6 in. by 1 ft., and is $\frac{3}{4}$ in. thick. When fully open a long length is

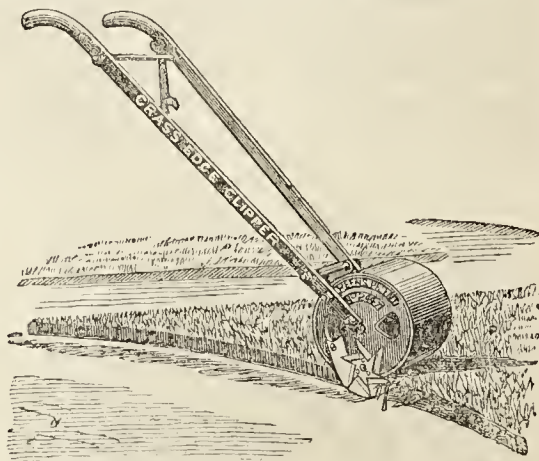
said to make a capital garden arch. It is also well suited to form a border to croquet or tennis lawns.—Burbidge & Co., Melksham.



GARDEN TRELLIS.

GARDENERS' EDGING SHEARS.—This recently patented novelty is designed to admit of the use of ordinary clipping shears as edging shears, by means of two extra shanks or legs which spring from the shears at convenient angles to the ordinary legs so as to be parallel to each other when the blades are closed. All the shanks or legs may be threaded at the ends to screw into the wooden handles ordinarily used; or they may be fitted to the handles in any other convenient manner, so as to admit of being readily attached and removed.—G. Brockelbank, Thornsett Road, Anerley.

GREEN'S GRASS EDGE-CLIPPER.—This machine is introduced with the object of doing away with the tedious operation of clipping the overhanging grass at the edges of walks and beds or borders by the ordinary edging shears. It has undergone several improvements since its original introduction, and is now recommended as a very efficient implement, which does its work well and may be used at an ordinary walking pace. For all such implements, however, the edges should be kept true and well defined, and in that case they do their work very effectually, but on uneven edgings their work is less satisfactory. The present implement has a wheel cast inside the drum, into which a pinion on the star-cutter is geared, the cutter having six cutting edges over the bottom shear, by which the overhanging grass can be easily and effectually cut. As is the case with all machinery, it is designed to work true, and consequently to work efficiently the edging to be operated on must also be kept true; thus much is necessary to do justice to the implement.



GREEN'S GRASS EDGE-CLIPPER.

NEW BOOKS, &c.

The GARDENERS' CHRONICLE (Feb. 25—Mar. 18) publishes the following novelties:—*Dendrobium Leechianum*, Rehb. f. (p. 256, fig. 35), a very handsome hybrid from *D. nobile* crossed by *D. aureum* (*heterocarpum*); see p. 52. *Dendrochilum arachnites*, Rehb. f. (p. 256), is a curious botanical species with bulbs like small gherkins, solitary euneate-oblong leaves, and loose racemes of light greenish flowers; Philippine Islands: Low & Co. *Odontoglossum acuminatissimum*, Rehb. f. (p. 256), which is suspected to be of hybrid origin, has great pear-shaped pseudobulbs, linear-ligulate leaves, and few-flowered racemes of stellate orange-coloured flowers having a few large crimson bars, and a dark yellow lip with a broad cinnamon bar, and bearing a double lamellar keel with six to seven teeth on each side. *Dioscorea multicolor*, Lind. et André (p. 257), which was figured from specimens of the leaves only in *Illustration Horticole* (xviii., 52, t. 53) under the names of *chrysophylla*, *sagittaria*, *melanoleuca*, *metallica*, *Eldorado*, and *prismatica*, has recently flowered at Kew. It is an ornamental-leaved stove climber, with largish cordate leaves of a rich green variegated with pale spots and blotches, and in the young state having a metallic hue. The flowers grow in gracefully branched panicles, the numerous branches $1\frac{1}{2}$ — $2\frac{1}{4}$ inches long, thickly covered with the minute dark purple flowers. Introduced from the Rio Negro, N. Brazil, by M. Baraquin in 1868. *Nepenthes Kennedyana*, F. von Muell. (p. 257, fig. 36), a species from N. Tropical Australia, with reddish, elongate cylindrical pitchers slightly dilated below the middle, and having deep sharply fringed wings, and an oblique mouth with a narrow finely-ribbed rim. *Ochna multiflora* (p. 294) though not new, is here noticed as being in flower at the Victoria Nursery, Holloway. The flowers are yellow with five roundish petals; as these fall off the thalamus begins to swell and at length becomes a large pentangular body, bearing a black seed-vessel on each angle; the sepals grow on and with the thalamus or seed-bed assume a brilliant crimson colour. *Polystachya dixantha* (p. 294) is a West African Orchid, with two-leaved stems, and racemes of ochre-coloured flowers. *Lygodictyon Forsteri*, J. Smith (p. 331, figs. 46, 47), a pretty climbing Fern synonymous with *Hydroglossum scandens*, Presl. The form here figured is the var. *Fulcheri* (for which see page 59). *Eria vittata* (p. 330), an Indian (Sikkim) Orchid, with oblong cylindrical pseudobulbs, a pair of thin oblong-lanceolate leaves, and racemes of green flowers striped with red. *Bolbophyllum cupreum flavum*, Rehb. f. (p. 330), a variety with light yellow flowers: Mrs. Russell Sturgis. *Epidendrum cingillum*, Rehb. f. (p. 330), a curious epiphyte with rigid stems, grassy leaves, and few ochre-coloured flowers: Mrs. Russell Sturgis. *Phalenopsis Schilleriana vestalis*, Rehb. f. (p. 330), is a white-flowered form of that fine species: Low & Co. *Freesia Leichtlinii major* (p. 331) is a hybrid between *F. refracta alba* and *F. Leichtlinii*; it has flowers larger than the latter, of a pale cream colour with a bright orange blotch at the base of the lower segment, the base of the tube being also yellow; the flowers are fragrant: C. Smith & Son. *Odontoglossum Pescatorei flavescens* (p. 331), a remarkable variety, with sulphur-yellow on all the parts of the flower, the petals very blunt oblong: Veitch & Sons. *Bolbophyllum mandibulare*, Rehb. f. (p. 366), a species of the Sarcopodium group with glaucous pseudobulbs, euneate-oblong leaves, and racemes of brownish flowers washed with light green, the petals striped with purple and the lip straw-coloured with purple freckles; Borneo: Veitch & Sons. *Dendrobium nobile nobiliss*, Rehb. f. (p. 366), a grand variety flowered by Sir T. Lawrence; sepals and petals resplendent purple; lip darker and more richly

marked than in other forms, all of which it far exceeds. *Masdevallia Shuttleworthii xanthocorys*, Rehb. f. (p. 366), a fine variety with the odd sepal nearly yellow, and the spots on the lateral sepals less numerous: Sir T. Lawrence. *Cattleya Triana formosa*, Hort. (p. 369), a very fine variety, with white sepals and petals having the faintest suffusion of pink, and a lip yellow in the centre, with a broad well-defined margin of pale lilac-purple: Veitch & Sons.

The BOTANICAL MAGAZINE for March contains:—*Catalpa Kämpferi*, Sieb. et Zucc. [t. 6611], a fine hardy Japanese tree, with long-stalked cordate obscurely-lobed leaves, and panicles of yellowish-white obliquely campanulate flowers spotted with red dots, the blossoms smaller in size than those of *C. syriaca*. *Mascarenhasia Curnowiana*, Hemsley, [t. 6612], noticed at p. 37. *Wahlenbergia saxicola*, A. De Candolle [t. 6613], a dwarf half-hardy perennial from New Zealand, of tufted habit, with obovate or oblanceolate leaves, and long-stalked pale lilac bell-shaped flowers. *Talauma Candollei Galeottiana* [t. 6614], the Magnolia Galeottiana of M. Van Houtte's nursery, a stove shrub, with large magnolia-like nodding yellow deliciously fragrant flowers. *Scutellaria Harlowii*, Benth. [t. 6615], a soft-wooded subshrubby stove plant, of erect slender habit, with ovate acuminate leaves purple beneath, and long terminal racemes of long-tubed scarlet flowers with the lower lip violet purple.

CORRESPONDANCE BOTANIQUE.—The 9th edition of Professor Morren's *Correspondance Botanique*, "a directory of the gardens of the world," has been recently issued, and will be found invaluable to those who have to maintain a correspondence with the botanists and botanic gardens in this and other countries. It gives the names of the professors, directors, and curators connected with the various universities and botanic gardens, as well as those of the more prominent individuals connected with garden botany in each country, the whole being arranged geographically. It is always a welcome brochure, and we owe many thanks to M. Morren for his labours herein.

HULME'S FAMILIAR WILD FLOWERS, 3rd series (Cassell & Co.), has lately been issued. The volume, like its predecessors, is well calculated to excite a love for our beautiful native plants, and to throw an especial interest about a country walk. The forty coloured pictures, though small, are faithful so far as they go, and the text is popular and readable without being particularly learned, and adorned with pretty initials and tail pieces containing further representations of the plants. It is a very commendable effort to extend a knowledge of our wild flowers amongst a class which would perhaps not be otherwise attracted towards them.

The GARDEN (Feb. 18—Mar. 18) figures in colours:—*Disa grandiflora superba* and *Disa Borellii* [pl. 324], two really superb temperate terrestrial Orchids, from specimens grown by Mr. Bedford, gardener to Major Barton, Straffan, Kildare. *Nymphaea tuberosa* [pl. 325], a handsome hardy North American Water Lily, in the way of our *N. alba*, but having the leaves elevated above the surface of the water. *Phalenopsis intermedia Portei* [pl. 326], a rare and lovely Orchid from the Philippines. *Begonia socotrana* [pl. 327], the rosy-flowered petate-leaved species brought by Dr. Balfour from Socotra. *Stone's Apple* [pl. 328], a valuable apple largely grown in the neighbourhood of Maidstone, and figured by us in our volume for 1878, t. 467. It is sometimes called Loddington, from the name of the farm on which it originated.

FLORE DES SERRES (liv. 7, 8, 9, vol. xxiii.) contains figures of the beautiful *Rosanowia ornata*, L. Van Houtte [tt. 2423—4], described at p. 181,

Cyclamen Atkinsii, Hort. [t. 2425], a well-known ornamental garden plant, here said to be synonymous with *C. ibericum album*. *Viola pedunculata*, Torrey & Gray [t. 2426], a handsome Californian Violet, with rhombic-ovate leaves, and flat pansy-like bright yellow flowers on very long stalks. *Amaryllis reticulata vittata*, Van Houtte [tt. 2427—8], a fine hybrid with white flowers, having the surface covered with reticulated lines of a bright rosy carmine, except where a clear white band passes down the centre of each segment; the leaves have a yellowish central stripe; a hybrid raised between *A. reticulata striatifolia*, and one of M. Van Houtte's fine garden varieties: Van Houtte. *Streptocarpus bifloro-polyanthus*, Duchartre [t. 2429], a showy hybrid, raised by M. Lemoine and by him called *S. polyanthus grandiflorus*, and having rosulate ovate-oblong rugose leaves, and 2—4 flowered scapes of large handsome pale lilac flowers. *Pteroma macranthum*, Hook f. [t. 2430], the *Lasiandra macrantha* of gardens. *Iris Kämpferi*, Siebold [tt. 2431—6]. Three double plates are devoted to fifteen varieties of this handsome Iris. *Sanchezia nobilis*, Hook f. [t. 2437], a fine stove Acanthad with scarlet bracts and yellow tubular flowers. *Peperomia argyrea*, Hort. [t. 2438], the *Peperomia Saundersii* of Cas. De Candolle, and *P. arifolia argyrea*, Hook f. *Rhododendron Ellen Cook* [tt. 2439—40], a hardy variety raised by Mr. Standish, with flowers of a violet rose, marbled and streaked with deeper rose, the upper segment with a blotch of dark spots. *Saxifraga peltata*, Torrey [t. 2441], a handsome and characteristic hardy perennial from North America. *Sonerila speciosa*, Zenk. [t. 2442], a stove plant of erect habit, with scorpioid heads of rosy-purple flowers. *Crinum giganteum*, Andr. [tt. 2443—4], a large white-flowered stove bulb from the Island of St. Thomas. *Azara Gilliesii*, Hk. and Arn. [t. 2445], a Chilean shrub with ovate leaves and dense oblong heads of yellow flowers. *Bryophyllum proliferum*, Bowie [t. 2446]. *Thunbergia coccinea*, Wall. [tt. 2447—8], a stove climber of the Hexacentris group. *Baptisia leucophæa*, Nuttall [t. 2449], a North American hardy perennial with spikes of white flowers. *Pirus communis*, Lin. [tt. 2450—1]. *Vignes du Soudan* [tt. 2452—3] consisting of photographic figures of *Vitis Lecardii*, V. Hardy, V. Faidherbii, V. Chantini, and V. Durandii.

L'ILLUSTRATION HORTICOLE (3 liv.) contains coloured figures of *Aglaonema pictum*, Kunth [t. 445], a dwarf stove Arad, with elliptic-ovate or oblong-lanceolate leaves of a deep velvety-green, boldly clouded and blotched with white and greenish-white, producing a striking variegation. *Begonia diadema*, Hort. Lind. [t. 446], a quite novel form of *Begonia* from Borneo, with short erect stems, and digitately-lobed leaves of a deep green freely mottled with white in a very effective manner. The number contains a portion of a very interesting list of the plants introduced or first sent into commerce by M. Linden.

GARTENFLORA (Feb.—Mar.) gives figures of *Viola altaica*, Pall. [t. 1071], a handsome plate of blue, yellow, and white varieties; from this plant, in part, it is supposed our garden pausies have been raised. *Crinum Schmidtii*, Regel [t. 1072], a noble species from Port Natal, with fine umbels of 8—10 white flowers, the flowers drooping, with a greenish tube and recurving limb segments. *Olearia ramulosa*, Benth. [t. 1073 a, b], a simple-looking somewhat heath-like shrub of the composite order. *Symplocos Samuntra*, D. Don [t. 1073 c—g], a styracaceous shrub from Nepal, of little horticultural interest. *Anaclycus radiatus purpurascens* [t. 1074], a neat hardy annual composite, with finely-cut bipinnatifid leaves, and radiate flower-heads nearly two inches across, with white or yellow florets stained on the outer side with

purplish-red. *Bollea cælestis*, Rehb. f. [t. 1075], a distinct and effective Orchid, with bold lanceolate-oblong leaves, beneath which nestle the showy violet-purple flowers. *Anthurium Gustavi*, Regel [t. 1076], a bold-habited stove Arad, from New Grenada, with large leathery bright green cordate-ovate leaves, and erect green spathes with an exerted spadix.

REVUE HORTICOLE (Feb.—Mar.) figures the following:—*Tulip Roi des Bleus*, a curious variety with a many-flowered stem, and small double bluish violet flowers. *Erigeron aurantiacus*, Regel, a fine hardy herbaceous plant from Turkestan, with flower-heads nearly as large and of as deep an orange as those of the pot marigold. *Spiræa Fortunei rubra*, Carrière, a very neat hardy shrub, introduced direct from Japan by M. Viesener, and having neat ovate leaves, and small subcorymbiform heads of very bright red flowers. *Montbretia crocosmiflora*, raised by M. Lemoine, a hybrid between M. Potsii and Tritonia (*Crocosmia*) aurea, already referred to at p. 31.

GARTEN-ZEITUNG (Mar.) contains a coloured figure of *Linaria maritima*, a tufted plant bearing a profusion of deep purplish-lilac flowers, more fully described with a woodcut, at p. 36.

REVUE DE L'HORTICULTURE BELGE (Feb.—Mar.) figures a coloured group of the varieties of *Abutilon* named *G. Delaux*, *La Candeur*, *Pur d'Or*, *Boucharlat aîné*, *E. G. Henderson and Son*, *M. B. Modeste*. In the March number is a figure of *Tydaea Le Vésuve*, Duval, a high-coloured and extremely floriferous variety, with flowers of a fiery-crimson colour streaked with deeper crimson.

JOURNAL DES ROSES (Mar.).—The coloured plate in this number is a portrait of Mr. W. Paul's H. P. *Rose Star of Waltham*, a variety with fine broad-petalled smooth flowers, of the cupped form, and of a deep bright carmine colour.

ICONOGRAPHY OF INDIAN AZALEAS (Nos. 5—6).—The varieties figured in these numbers are:—13. *Fürstin Bariatinsky*, a large white with bright red stripes. 14. *François de Vos*, with double bright red flowers flushed with orange-scarlet. 15. *Empereur du Brésil*, a large double flower of a salmony-rose with paler edges, and with a blotch of purple spots on the upper segment. 16. *Franklin*, a large even-margined flower of an opaque white. 17. *Argus*, a large smooth flower of a clear salmon-rose, with a heavy spotting of blackish-crimson, and a tuft of petaloid segments. 18. *Amœna Caldwellii*, a pretty variety with hose-in-hose flowers, larger than in the type, and of a brighter magenta-purple colour.

The ORCHID ALBUM (part VIII.) contains the following figures:—*Cælogyne Massangeana*, Rehb. f. [t. 29], a fine Assam Orchid, with long drooping racemes of ochre-coloured flowers, having the lip yellow at the disk and handsomely marked with maroon-brown bordered with white: M. D. Massange. *Lælia elegans alba*, Williams [t. 30], a charming and very rare variety of this fine Brazilian species, in which the large expanded flowers are pure white, with the front lobe of the lip of a rich crimson-purple, as is the anterior edge of the lateral lobes; flowered by W. Lee, Esq. *Calanthe Veitchii*, Lindley [t. 31], a well-marked hybrid raised by Messrs. Veitch, and one of the finest of decorative Orchids, its tall spikes of rich rosy-pink flowers being very effective; the flowers have a white eye, and are sometimes produced as many as fifty on a stem. *Oncidium hematochilum*, Lindley [t. 32], is one of the oldest of Orchids, and one now seen very rarely, but withal a beautiful plant, having the leaves mottled with red, and the yellowish-green flowers thickly spotted with rich brown, the lip being crimson with a yellow margin, which is closely dotted with deep rose-crimson; it is from New Grenada.



AURICULA MABEL.

[PLATE 560.]

DURING the last few years a very large number of really good show Auriculas have been raised. Some of these have been exhibited, but by far the largest proportion of them are yet in the hands of the raisers.

The Auricula cannot be propagated like a Verbena or Scarlet Pelargonium, and it is some time after a new variety has been exhibited as a seedling before it can be sent out or distributed to the public. The Rev. F. D. Horner, of Kirkby Malzeard, near Ripon, has been remarkably successful in this branch of floriculture; he has had an opportunity of crossing the very finest varieties, and, having done so in an intelligent manner, the result is that in all the classes—green, grey, white, and self-edged—he has flowers that have never yet been equalled, and which one would think could scarcely be surpassed. Next to Mr. Horner, I would mention Mr. B. Simonite, of Rough Bank, Sheffield, in his “windy, bony strip,” who also has been doing wonders with the Auricula; he has raised and sent out some really good seedlings, and is still raising them. I hear that other hybridisers are working earnestly in this fair field of floriculture.

Mr. Woodhead, of Shibden Head, near Halifax, has, I hear, also been very successful in raising seedlings, said to be of great merit; but I cannot speak from personal knowledge of them. We hope to see them at our exhibitions during the current season.

I have also been doing a little in this way, and have raised a few good seedlings. Amongst them MABEL, which is figured on the accompanying plate, was raised in 1879 by crossing Marie (Chapman) with the pollen of Silvia (Douglas), and is a grey-edged variety of free growth. This flower was selected by the judges at the National Auricula Society's Exhibition, held at South Kensington in 1881, not only as the best grey-edged Auricula, but also as the best Auricula of any class in the exhibition, and it was consequently awarded what the fanciers call the “premium” prize. It is of a dwarf free-growing habit, and will not be slow of increase. —JAS. DOUGLAS, *Ilford*.

ALPINE AURICULAS

AND THE LAST WINTER.

ONE singular result of the mildness of the last winter has been the almost complete defoliation of a nice border of Alpine Auriculas, of which we have been rather proud for several years past. Last year at this time these were showing bloom, the leaves meeting each other and covering the ground. Now, March 2nd, they have hardly any leaves on them, and the flowers are very much later and not half so many of them. The plants are in the same place—a north-east border under a wall. They were top-dressed last summer after flowering, and made a good growth afterwards. They first began to lose their leaves early in December, and have been going on losing them more or less ever since.

As this defoliation could hardly arise from the mildness of the winter, could it have been caused by the heavy rains of the last autumn? Will some of our Auricula-growers kindly give their opinion, and say if their plants have suffered in the same way? Also what remedy they would propose. A change of site? Well, the plants have done so well for four years where they are, that I don't wish to move them. Probably some one may say they should have been moved before. I should have fancied they might have become tired of their present quarters, had it not been for the fact that offsets that were planted in fresh quarters last summer have lost their leaves in the same way.—D. T. FISH, *Hardwick Hall*.

FORCING THE LILAC.

FORCING Lilacs to get the flowers white is a very easy process, if there is a good high mushroom-house or cellar. Lift some bushes of the very common variety, the larger the better, and cover the roots with old mats if soil is not at hand, keeping them moist. The less heat the better, if they are kept free from frost or sudden changes of temperature, for excess of heat brings the flower-spikes long, and with an unnatural appearance. Good large bushes produce a great quantity of bloom, and are none the worse for forcing again after a season's rest. At the same time many ladies

prefer them in their natural colours, and having the scent the other loses. The gentle forcing they require makes the difficulty of getting them plentifully, for the sun, or a little extra heat in the houses, causes them to start into growth; the blooms heads will not then open, but become brown and dry up. A north-house or pit is the best place for forcing them in, as it is also for most hardy things. All the varieties admit of being forced, and that named Dr. Lindley should be a great favourite amongst them from its large blossoms and free flowering habit.—J. FLEMING, Cliveden.

STANDARD ABUTILONS.

IN this rapidly-increasing, popular, and attractive group of plants, the *Abutilon vexillarium variegatum* is still one of the most effective and pleasing, its bright glossy flowers borne upon the slender trailing shoots in the greatest profusion, and its richly-variegated foliage giving it a high position amongst the more desirable of our decorative plants. The good qualities of this *Abutilon* are so many that it is serviceable in whatever way it may be used, but as it is marked by a very elegant drooping habit of growth, its real gracefulness is most fully displayed when it is grown in the shape of a standard, grafted upon a single stem of some stronger-growing variety.

To form these standard plants procure firm young shoots of *A. vexillarium*, and healthy freely-grown straight stocks. Cut off the stocks to the height required—3 ft. to 4 ft. will be found a suitable height of stem, but this of course can be varied to suit any purpose—and graft them with the selected scions. Whip-grafting is the best mode of operating, cutting the scion to correspond to a similar sloping cut on the top of the stock, tying with matting or other material, and binding around the ligature a little moss, which is all the protection that will be required. If assisted by the aid of a genial, warm, and moist temperature, the moss freely syringed, and the plants shaded from bright sun, they will speedily unite, and in the course of about ten days will by degrees bear exposure; indeed, so marked is the facility with which the union is effected, and so free and vigorous the growth, that with ordinary care they will soon make good heads.

Those who have plants at command may in

this way soon have a good stock. The brilliant drooping clusters of flowers form a most elegant picture when they are used sparsely as relief plants upon a groundwork either of foliage or flowering plants; they are equally valuable for conservatory decoration, and for plant groups. When carefully potted up in autumn, and brought indoors, the flowers are produced in great profusion throughout the winter. I know of no other *Abutilon* which flowers so freely during winter when grafted as does *A. vexillarium*.

Abutilon Darwinii tessellatum is also an effective variety, and desirable on account of its flowering so freely at all seasons.—Geo. WESTLAND, Witley Court.

SHOW PANSIES.

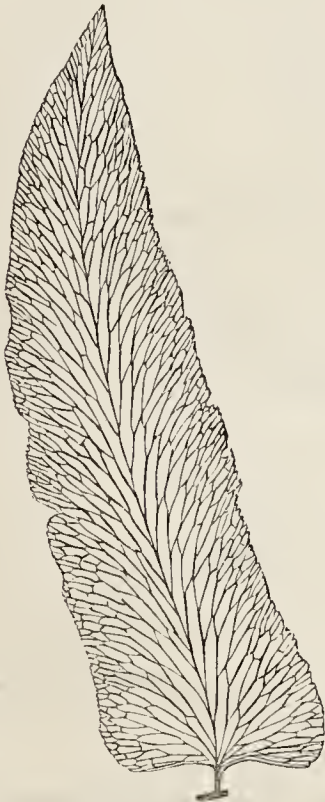
ALREADY in the open air the Pansy flowers are unfolding themselves, and a continuance of the present mild sunny weather, followed by some soft April showers, will give a rare head of bloom by Easter-time. In a cold frame plants in pots have made a rare growth, and are fast getting into blossom. A little weak liquid manure given twice a week induces a good growth, and fine flowers are pretty certain to follow.

In the open ground, the plants divided last September, and planted up in good soil, are growing merrily, and doing what we like to observe at this season of the year—making a free growth at the base of the old stocks. Already the main shoots are pegged into position, in case rude March winds should blow, and they be in danger of being broken off. A top-dressing has been employed, after loosening the surface, so that the added soil might nourish the young roots forming near the surface. In stiff soils, or soils that are at all harsh (and they, unfortunately, are too common in gardens), the old roots of the plants decay in early summer; and hence it is that frequent top-dressings prove so beneficial, as the plants re-form, and re-establish themselves by rooting into the added soil.

Except under the most favourable conditions, it is only the strongest growing of the Show Pansies that should be planted in the open ground, the more delicate ones being grown in pots; and if planted out for a time

during summer, it should be in a carefully-prepared bed of light soil in a cool place, and where the plants can be protected from the hot summer sun. In the midland and northern districts, where the climate is cooler and moister than it is in the south, the Pansy succeeds better in the open ground, but needs protection in winter, because the cold is more keenly felt.

It is scarcely necessary to give the names of varieties. Any one attempting to grow the Show Pansy should get two or three dozen plants of vigorous growing varieties, and make a choice selection from these when they are in flower. Those who grow the Pansy simply for the pleasure it affords will find eight or a dozen reliable varieties as satisfactory as two or three dozen; and it is easy to make small additions as required.—R. DEAN, *Ealing*.



STERILE PINNA.

HYDROGLOSSUM SCANDENS FULCHERI.

ON the 10th of January last a remarkably interesting climbing Fern, not generally recognised, was shown at South Kensington before the Floral Committee of the Royal Horticultural Society, and received a 1st-class Certificate, in acknowledgment of its very ornamental character. This Fern was exhibited by Mr. Kettle, gardener to H.

Egerton Green, Esq., of King's Ford, Colchester, and is that represented in the accompanying wood-cut illustrations, for the two larger of which we are indebted to the *Gardeners' Chronicle*, where we have published some observations respecting the plant.

According to the modern view that the marked differences which occur in the venation of Ferns should be made use of for breaking



SPECIMEN PLANT.

up the vast array of species which come under the more antiquated genera, into groups of more manageable extent, Mr. John Smith proposed for this Fern the name of *Lygodictyon*, but Willdenow had previously published that of *Hydroglossum* for a similar but more comprehensive group, and this latter name was adopted by Presl, in his review of the *Lygo-*

diea, to which the plant belongs, and we have also adopted it in the *Index Filicum*. The *Lygodiæ* consist of two genera—*Lygodium*, with free veins; and *Hydroglossum*, with reticulated venation. They are very similar in external appearance, but are distinct in habit from all other Ferns in that they produce from the crown of the roots numerous tall, slender, climbing stems.

Hydroglossum scandens is a native of the Society, Sandwich, Fiji and other Polynesian

plant it would associate well with the *Gleichenias*, to which it would form a striking contrast. We have recently in the *Gardeners' Chronicle* (N. S., xvi., 399) proposed the varietal name of *Fulcheri* for Mr. Green's plant, which is distinguished from the common form of the species by the following particulars, as well as by its bolder and more vigorous habit of growth:—

Pinnæ larger (more than 3 inches long, and nearly 1 inch broad), more regularly tapered



FERTILE FROND.

Isles, and is also found in East Tropical Australia. Though specifically identical with this, the plant now under notice, is, we believe, a more vigorous-growing luxuriant variety than that which has hitherto been met with in collections. This older cultivated form has never, within our knowledge, assumed anything like the luxuriant growth and ornamental character which marked the specimen shown by Mr. Kettle. In that state it is not only a distinct and handsome but a very characteristic decorative Fern; while as an exhibition

from the base to the apex, the base obliquely truncate scarcely at all cordately-rounded, and the apex acute.

In *Hydroglossum scandens Fulcheri* the stem or caudex is semiterete and of a pale brown colour, producing short branches, from the apex of which grow a pair of fronds, which vary from 6 to 9 inches in length and from 4 to 6 inches in breadth, and are made up of from four to six pairs, sometimes more, of subcoriaceous pinnæ, attached by short fusco-hirsute petioles, with which they are articulated. The

sterile pinnæ are oblong-lanceolate, 2 to 3 inches long, unequally crenate, the lower ones with the superior base subtruncate or very slightly rounded, the upper ones with the base acute. The fertile pinnæ are usually shorter, with the little spikelets of fructification projecting from the marginal teeth. The veins, which are prominent on both surfaces, anastomose in about two series of elongate oblique hexagonoid areoles.

The garden name of *Lygodium Fulcheri*, under which the plant was exhibited at South Kensington, was given to it provisionally in Mr. Green's garden in compliment to Mr. Fulcher, by whom it was brought from Sydney in 1879—then but a tiny plant, which has since made good progress. Mr. Kettle, who deserves our warmest thanks for developing this new beauty, informs us that the imported plant made a good growth in 1880, but that he unfortunately used it for indoor decoration before the fronds were matured, which greatly damaged its appearance. It, however, made a good growth in 1881, and promises to do equally well in the present spring. It was grown in what may be termed a warm greenhouse—a small house used for the cultivation of Maidenhair Ferns. The soil in which it was potted consisted of loam and peat in equal parts. The plant exhibited received otherwise no special treatment.—T. MOORE.

SCARLET-EDGED PICOTEES, &c.

EXCEPT in the scarlet-edged class the varieties of Picotees in the several groups are sufficiently numerous. Among the scarlets, however, the number of good kinds is comparatively small, especially among those with light edges. So few indeed are they, that it has not hitherto been thought expedient to class them by themselves; and consequently we find them in the published lists intermixed with the rose-edged varieties, the class being designated rose- and scarlet-edged. No doubt this is very perplexing to amateurs and others not familiar with the different sorts; and in order to assist cultivators who are in this position, I propose in the first place to establish a distinct scarlet-edged class, and then to describe a selection of the best sorts of that set now in cultivation. In the other colours we have a fair proportion of light-edged flowers; but in this scarlet class those I have been able to note are all of the heavy-edged division.

SCARLET-EDGED VARIETIES.

Constance Heron: to commence my selection, I must begin with this fine variety, raised by the Rev. C. Fellowes, of Shotesham Rectory, Norfolk, to whom we are indebted for the production of so many first-class kinds of Picotees. It is a remarkably distinct variety, having good broad smooth petals, very heavily margined with bright scarlet; large and moderately full. This is unquestionably the leading flower in this class; it is not yet in commerce, but will be distributed in the autumn of the present year.

Juliana (Turner), heavy-edged, good smooth petal, fine form and bright colour, medium size.

Charles Williams (Norman), a good broad smooth-petaled heavy-edged flower, very large and full, fine.

Obadiah (Kirtland), heavy-edged, very bright showy flower, but lacking smoothness of petal.

Miss Lee (Lord), heavy-edged, good smooth petal, and a flower of fine form.

Regina (Fellowes), heavy-edged, medium-sized, bright, smooth, and good.

Flower of the Day (Norman), heavy-edged, a fair flower.

Mrs. Davies (Norman), heavy-edged, a medium-sized flower, and very evenly marked.

Field Marshal (Payne), heavy-edged, bright, but rather thin.

Rosy Queen (Wood), heavy-edged, a nice flower, bright, with a good solid edge.

Lady Boston (Fellowes), heavy-edged, a very large full flower, fine.

Brilliant (Payne), heavy-edged, much like *Juliana*, but not so good.

The foregoing remarks apply to the scarlet-edged varieties only; consequently, viewed as a list of choice Picotees, the above enumeration is very incomplete. We are, indeed, so frequently asked for lists of the best sorts of the various classes, that we may well take the present opportunity to add the names of some of the finest varieties of the other groups, as a guide to those who may wish to make a selection of the sorts best adapted for exhibition purposes.

ROSE-EDGED VARIETIES.

Mrs. Payne (Fellowes), H.
Lady Carrington (Abercrombie), L.
Ethel (Fellowes), L.
Edith Dombain (Turner), H.
Evelyn (Fellowes), L.
Fanny Helen (Niven), H.
Royal Visit (Abercrombie), H.
Lucy (Addis), L.
Miss Gorton (Dodwell), L.
Estelle (Fellowes), L.

RED-EDGED VARIETIES.

Dr. Abercrombie (Fellowes), H.
 Dr. Epps, H.
 John Smith (Bower), H.
 Brunette (Kirtland), H.
 Picturata (Fellowes), H.
 Thomas William (Flowdy), L.
 Queen of Summer (Fellowes), medium.
 Mrs. Bower (Bower), L.
 Mrs. Gorton, L.
 Clara (Bower), L.

PURPLE-EDGED VARIETIES.

Mrs. A. Chancellor (Turner), H.
 Her Majesty (Addis), L.
 Zerlina (Lord), H.
 Clara Penson (Willmer), L.
 Tinnie (Dodwell), medium.
 Muriel (Hewitt), H.
 Mrs. Summers (Simonite), H.
 Baroness Burdett-Coutts (Payne), L.
 Minnie (Lord), L.
 Lizzie Tones (Dodwell), medium.

YELLOW-GROUND VARIETIES.

Alice Wait (Turner).
 Ne Plus Ultra "
 Princess Beatrice "
 Miss Abercrombie "
 Lady Aitchison "
 Princess Marguerite "
 Flavius "
 Mrs. Cavell "
 Miss Watson "
 Aurora "

—JOHN BALL, *Slough*.

GARDEN GOSSIP.

OF the reissue of PAXTON'S FLOWER GARDEN which has been appearing in monthly parts Messrs. Cassell & Co. have just issued the first volume in a handsome binding which, together with the getting up of the contents, makes it quite a table book. The work was originally edited by Dr. Lindley, and took a high position in the botanico-horticultural literature of its day. The reissue has been revised by Mr. Thomas Baines, and the object seems to have been to make it more of a garden and less of a botanical authority, and hence half the number of plates, those of the least interest from a decorative point of view, have been cast aside, and others representing plants of a more ornamental character have been substituted. The new plates in this volume consist of 1. *Aërides crassifolium*, 2. *Spiræa palmata*, 3. *Dendrobium superbiens*, 5. *Boronia elatior*, 7. *Odontoglossum vexillarium*, 9. *Nepenthes sanguinea*, 11. *Nymphaea alba rosea*, 13. *Azaleas: Judith, Meteor and Silvio*, 15. *Bollea cælestis*, 17. *Rhododendron A. B. Mitford*, 19. *Anthurium Andréanum*, 21. *Pescatorea Klavochorum*, 23. *Jasminum gracillimum*, 29. *Phalanopsis intermedia Portei*, 30. *Chionodoxa Luciliae*, 31. *Xirolirion montanum*, 33. *Pyrus Malus floribunda*, 35. *Senecio speciosus*. The plates are of unequal merit, the new ones, however, comparing favourably with the old ones retained, but unfortunately the whole are renumbered, so that references to the two editions will be very confusing. In the portion headed Gleanings and Memoranda the descriptions of many botanical plants are omitted and the space filled with notes on more recent popular plants. Altogether the coloured pictures and the useful cultural information given should commend the reissue to the notice

of well-to-do persons who take an interest in their plants and gardens.

— THE suit for the possession of the ROYAL HORTICULTURAL GARDENS between the Commissioners for the Exhibition of 1851 and the Royal Horticultural Society was decided by the Court of Appeal on March 22nd, in favour of the Commissioners. Their Lordships (the Master of the Rolls and Lords Justices Cotton and Lindley) held that the relation between the Commissioners and the Society was that of landlord and tenant, and not that of partners; that the debenture-holders had no equitable rights against the Commissioners; and that the Commissioners were entitled to recover possession of the South Kensington Gardens from the Society, and their costs. The Gardens were to be given up to the Commissioners within four months. The debenture-holders lose their money absolutely. It now remains to be seen whether or not the Commissioners will allow the Society such facilities as may be necessary for carrying on its work in the interests of Horticultural progress.

— A DESCRIPTIVE CATALOGUE OF POTATOS has been published by Mr. Shirley Hibberd in the *Gardeners' Magazine* (1882, 87). The list extends to 540 names of varieties, 140 of which are regarded as synonymous. The form, colour, size, quality, productiveness, height, and season of each sort are here tabulated, and the result is a valuable contribution to our permanent records of the varieties of cultivated plants.

— THE INTERNATIONAL POTATO EXHIBITION is to take place at the Crystal Palace in the ensuing autumn on September 20 and 21.

— THE CAMELLIA GUISEPPINA MERCATELLI, figured recently in the *Bulletin* of the Horticultural Society of Tuscany, is a very fine variety, with white flowers of moderate size, sparingly striped with red, having the outer petals rounded and indistinctly crenulate, and the inner ones somewhat pointed. The flowers are very double, and symmetrically imbricated after the true florist's model.

— THE GREAT NATIONAL HORTICULTURAL WHITSUN EXHIBITION of the Royal Botanical and Horticultural Society of Manchester is to be opened as usual on the Friday preceding the Whitsun week, during which it remains open. This year the date of the opening day falls on May 26th, and the show remains open till June 2nd. The schedule as usual offers liberal prizes, and the show will no doubt maintain its now established reputation.

— THE ROYAL HORTICULTURAL SOCIETY has announced and issued Schedules for a GRAND EXHIBITION OF IMPLEMENTS AND GARDEN STRUCTURES, TOOLS, and APPLIANCES, to be held at South Kensington. The Show is to extend from May 23rd to July 5th. The prizes consist of Medals and Certificates of Merit. There are 20 Classes in the Schedule, which, with a plan of the Exhibition ground, can be had of Mr. Barron, the Garden Superintendent.

— THE GARDENERS' ROYAL BENEVOLENT INSTITUTION holds funded property to the

amount of £15,350, including £500 raised last year for the Augmentation Fund, and £800 received from the Arthur Veitch Memorial Committee. It is intended to increase the amount of the pensions granted by £1 per annum, as soon as the funded property reaches £20,000; and as this requires but £4,650 to be got together, it is proposed to repeat the general collection of small sums in aid of the Augmentation in the same way as was done last year. Collectors who in this way contribute ten guineas will be entitled to the privilege of life subscribers. We wish the movement every success, and commend the matter to the notice of such of our readers as may not hitherto have taken any interest therein.

— **IN** respect to the **TRANSIT OF GARDEN PRODUCE** the London and North Western Railway Company have shown themselves to be possessed of enterprise of a kind which is not so frequently exhibited by railway companies as it might be. The company have arranged to receive daily at their Kew Bridge Station all kinds of farm and market garden produce, and to forward them in time for the early markets next morning in the large towns of the northern and midland counties. Seeing that Market Gardening will, in all probability, play a very important part in our future agricultural history, this new departure is a step in the right direction.—(*Gard. Mag.*, 140.)

— **THE ALEXANDRIAN LAUREL** is a graceful little bush, by far the most graceful of winter evergreens. It is not common in gardens, though it is not very difficult to obtain, and wants a few years' careful culture before it is established, and one can cut away freely at the elegant shoots. The plant is nearly allied to the Butcher's Broom, but infinitely more free and graceful in habit, and better in the rich glossy colour of the leaves and shoots. Its place in the garden is as an isolated group, or series of small groups among the dwarfier shrubs, and it usually grows from three to four feet high. Like the asparagus, to which it is not very distantly related, it, when established well, may be cut and cut again with impunity. A more valuable outdoor plant for indoor decoration when cut, there is not.—(*Field*.)

— **IN** discussing the question of **FEEDING VINES**, the editor of the *Gardener*, whose successful practice gives force to his teaching, observes:—In November a good dressing of bone-meal is forked in as near to the roots as possible without injuring them, and the border is then covered with four inches of the richest manure procurable. The manure is allowed to remain undisturbed until about the time when the Grapes are thinned, when it is removed without disturbing the border, and another dressing of manure applied. If the weather be dry when the summer dressing is applied, a thorough soaking of water is given. In time of heavy rain a sprinkling of guano is sometimes applied, and sometimes a dressing of soot, which imparts colour and texture to the leaves. No manure except crushed bones is put into the border when made. In Grape growing there are a few cardinal points to be attended to:—Never mix much manure with the border but top-dress liberally; have the most perfect drainage, and give plenty of water in dry seasons and localities; never have the rods closer together than 3½ feet, nor the spurs closer than 18–20 inches; avoid an overmoist atmosphere, give plenty of air

night and day, and avoid high night temperatures, especially early in the season. The nitrogenous manures above alluded to stimulate growth in a powerful manner, but maturation and ripening of the wood have to be considered also, and for this purpose in addition to the lime and phosphorus of the bone-meal, the addition of potash salts is called for if the border does not already contain sufficient.

— **THE CLOVE CARNATION MRS. LAZENBY** is highly spoken of; it is a variety having a robust habit of growth, and produces large well-formed flowers, of a good yellow colour. A small selection of these fragrant favourites for a beginner might comprise the following varieties:—Mrs. Lazenby, yellow; Coroner, scarlet; Bella, delicate blush; Corsair, deep purple; Eliza, violet purple; Susan Askey, white; and Sybil, bright rose: all most valuable for the flower-border or for bouquets.—(*Gard. Chron.*, N. S., xvii., 227.)

— **THE HELIOTROPE OXONIAN** is one of the most charming varieties for winter forcing, and is especially adapted for bouquet making, being strongly perfumed. The flowers are borne in small trusses of dark purple, and the centre of the individual florets is white, which contrasts well with the larger body of purple.—(*Gard. Chron.*, N. S., xvi., 783.)

— **THE CORN-BOTTLE** is very successfully grown at Gunnersbury Park as a winter flower, and is found most useful. It is something to have a fine flower of a striking colour produced in abundance at this season of the year. The seed is sown at the end of June in 32-sized pots, and when large enough the plants are thinned out to four or five at most. Kept in a warm house, the plants flower with amazing freedom; and as soon as a crop is cut, another takes its place. What a lovely hue of blue the flowers take on, bright in tone and lasting in character.—(*Gard. Chron.*, N. S., xvi., 662.)

— **MESSERS. COVENTRY AND CARSTAIRS** have sent us a collection of **FLOWER SEEDS** done up in packets, each bearing on one side a coloured portrait of the plant of which seeds are enclosed by it, and on the other side directions for sowing, &c. The little pictures are fairly good representations of the several plants. The idea is a good one; and the tiny figures as well as the cultural instructions will, no doubt, be fully appreciated by amateur gardeners, for whose special benefit they are provided.

— **M. CORREVON**, of Geneva, writing of **ANDROSACE VILLOSA**, a pretty alpine plant which grows in the Pyrenees, the Jura, and other limestone mountains, observes that it is one of the prettiest and one of the most interesting and desirable plants that we can cultivate on rockwork. Its silky foliage grows in compact tufts, each of which produces a stem laden with rose-coloured flowers, with a deeper-coloured eye, and which have a perfume of honey. They are produced in May and June, and are so abundant that they completely cover the plant, so that the foliage can scarcely be seen. It should be grown in a little narrow pocket, where it has not much room to expand, so that its compact habit may be the better preserved. The pocket should be well drained with limestone pebbles and exposed to the sun. If it is placed in a larger pocket it sends off many offshoots, breaks up into a quantity

of little tufts, and loses all its charm. The soil should be light, sandy, and calcareous. Imported tufts produce a greater abundance of flowers, but the plants obtained from seed last longest.

— **THE EARLY MUNICH TURNIP** is the earliest of all the varieties at present known; and as early turnips cannot be had too quickly in the spring this variety is decidedly to be recommended. The bulbs are of small size and flattish in outline, and of a reddish purple colour. When grown by the side of other approved varieties its precocity is apparent, so that for forcing and the earliest crops in the open garden it can scarcely fail to become popular. Indeed, it only requires to be better known to be thoroughly appreciated.

— **VERY** few observations have probably been made on the **HARDINESS OF TROPICAL ORCHIDS**, although we know that some of these come from regions where neither frost nor snow are strangers. A case in point was mentioned recently in the *Revue de l'Horticulture Belge* (1881, p. 232). M. Kienast, of Zurich, a learned amateur cultivator of Orchids, states that a plant of *Lælia anceps Dawsoni* sent to him in January, 1881, was delayed for twelve days at the Swiss frontier. The temperature at the time was -15° R. (0° F.). The plants contained in the same case—*Anhaloniums* and *Echinoactis*, arrived completely frozen. The *Lælia* was left for eight days in a room with a temperature of about $+6^{\circ}$ R. (45° F.), and then taken into the Odontoglossum house, where it was suspended head downwards, and watered two or three times every day. After fifteen days, it produced an abundance of roots, and from eight pseudobulbs six fine healthy shoots have started.

— **REGARDING** the value of **WORM-CASTS**, Dr. Gilbert, of Rothamsted, recently submitted to the Royal Horticultural Society an account of some experiments he had made in order to ascertain the proportion of nitrogen they contained. He collected a quantity of earth-casts from his lawn, and found by analysis of the dried mould that it contained 35 per cent. of nitrogen, which is higher than that of ordinary pasture soil in the adjacent park, where the percentage proportion of nitrogen is 25 to 30, and two or three times higher than in arable land, but not so rich as in highly-manured garden mould. Ten tons per acre of worm-casts would, therefore, yield about 80 lb. of nitrogen per annum, or more than double that of ordinary meadow land without manure. The conclusion arrived at was that there would be no absolute gain in nitrogen from the action of the worms, but that they would bring up from below a larger available supply, just as would be afforded by trenching.

— **THE** Exhibition of the **NATIONAL AURICULA SOCIETY**, Northern Division, is fixed to take place in the Town Hall, Manchester, on May 2nd, in connection with the Spring Show of the Royal Botanical and Horticultural Society. The Prize Lists may be obtained of the Secretary, the Rev. F. D. Horner, Kirkby Malzeard, Ripon.

— **THE** very effective hybrid **RHODODENDRON SESTERIANUM** was raised by Messrs. Rinz & Co., of Frankfort-on-Maine, from *R. formosum* (*Gibsoni*), crossed with pollen of *R.*

Edgeworthii. It is a truly excellent and lovely flower, white with a yellow tinge. Many types of the same cross are in cultivation, of which *Duchess of Buccleuch*, as grown by Messrs. Downie & Laird, of Edinburgh, is perhaps the best. *R. magniflorum* was raised between *R. Edgeworthii* and *Countess of Haddington*, by Mr. Parker, of Tooting, and has pure white flowers of a large size.

In Memoriam.

— **M. LE COMTE DE KERCHOVE DE DENTERGHEM** died at Ghent on February 21st, sincerely regretted by his fellow-countrymen, regrets in which those English horticulturists who have come into contact with him officially at the great shows held in that city of gardens will profoundly and sincerely share. The late Count (Charles Constant Ghislain) was born in Ghent in 1819, and took high honours at the School of Engineering. In 1848 he became a member and in 1859 Honorary President of the Royal Society of Agriculture and Botany of Ghent, in which capacity he presided over the great quinquennial Exhibitions of 1868, 1873, and 1878. On the death of M. de Ghellinek de Walle, in April, 1875, M. le Comte de Kerchove was nominated President of the Society, and also of the Cercle d'Arboriculture. He filled various municipal offices in Ghent, and was appointed, by the late King Leopold, Burgomaster of the city, a high position which he filled with honour and distinction. Horticulturists will specially feel his loss, for he was a great patron of gardening. The Winter Garden erected by him at Ghent is one of the sights of that interesting city, and was freely opened for the inspection of visitors. M. le Comte Oswald de Kerchove, Governor of the province of Hainault, who succeeds to his father's title, has associated himself still more intimately with horticulture and the members of the horticultural press, and we offer him our cordial sympathy under his present heavy bereavement.

— **MR. EDWIN FANCOURT** died on February 2nd, of heart-disease, aged 57. He was the son of Mr. John Fancourt, who commenced his career in 1811, at the Bedford Nursery, New Road, and after practising at the Ball's Pond Nursery and the Clapton Nursery, went to Messrs. Henderson, at Pine-apple Place, where he remained thirty-three years. At the latter place the father taught his son the mode of multiplying plants the most difficult to increase, and he soon became an expert in the art. He was subsequently employed by Messrs. Knight & Perry, Cant, Standish, and again by Messrs. Henderson & Co. For eighteen years he was manager to Mr. William Cutbush, of the Barnet Nursery; whence he went to Messrs. Osborn, of Fulham, and afterwards to Messrs. James Dickson & Sons, of Chester, with whom he remained until his death.

— **MR. ALEXANDER MCKAY** died at Oakley, near Bedford, on February 13th, at the age of 71 years. He was born at Fochabers in 1810, and served his apprenticeship at Gordon Castle, whence he removed to Woburn Abbey, where for seven years he had charge of the forcing department. Subsequently he was appointed by the Duchess of Bedford to the charge of the gardens at Endsleigh, near Tavistock; and in 1861, on the death of Mr. Forbes, he returned to Woburn, and held the position of head gardener there till 1870, when he retired.



Dahlia gracilis:

1, gr. superba. 2, gr. cuprea. 3, gr. lutea.

NEW VARIETIES OF DAHLIA GRACILIS.

[PLATE 561.]

THE so-called single forms of the Dahlia which are now so popular, are amongst the most showy and effective of border flowers, holding a position in the flower-garden altogether apart from the Dahlias of the florist, in which latter the disk as well as the ray florets have been trained to develop a petal-like form, while in the so-called singles the outer row only, forming the ray, is petaloid. The taste which has sprung up for these Single Dahlias has been regarded by some persons as a popular craze, which it is predicted will subside as rapidly as it has sprung up. We see no reason for this catastrophe. The flowers in themselves are beautiful, very beautiful, and they appeal to a far wider constituency than do the Dahlias of the florist; they are beautiful as garden ornaments, and the popular verdict is but an honest recognition of that beauty. It must be owned there are Single Dahlias and Single Dahlias, and we abjure almost altogether the tall coarse-leaved forms which come from *Dahlia variabilis*, and give place and preference to the varieties of two species very distinct from the foregoing, namely, *Dahlia gracilis* and *Dahlia coccinea*, both of Mexican origin, both dwarfish and abundant-flowering, but the former being the more elegant of the two on account of its slender wiry habit of growth, its finely-divided shining green foliage, and its high-coloured and well-displayed blossoms. Those who have any knowledge of the neat bushy habit, narrowly-cut glossy leaves and brilliantly-coloured flower-heads of *D. gracilis* will agree in this estimate of its merits. It is of a group of new varieties of this species that we now publish portraits.

We have elsewhere remarked that the varieties bred from the true *D. coccinea* of the *Bot. Mag.*, t. 762, a rare species, introduced about 1802, with dark stems covered thickly with grey hairs not shown in the above-quoted figure, rank next to *D. gracilis* in their fitness for the flower-garden, being about three feet in height, bushy in habit, and remarkably free-flowering.

D. gracilis is the most recently introduced species, having been sent from Mexico by

M. Roezl in 1873, and figured in the *Gartenflora*, t. 861 (1876). It is unlike all the other species known, in its more finely-cut foliage with long narrow pointed segments, which gives it a remarkably neat appearance, its elegant effect being enhanced by the abundant display of flower-heads on slender wiry stalks elevated just above the dense mass of foliage. The flower-heads have a single series of ray florets of a bright orange-scarlet colour, and measure about $2\frac{1}{2}$ inches in diameter.

DAHLIA GRACILIS SUPERBA (fig. 1) is a very fine variety, and well proved for its constancy of character. It is of a dense slender twiggy habit of growth, being copiously furnished with thin glabrous stems and branches, well clothed with bipinnate leaves, of which the rachis is wingless, and the leaflets narrow long pointed and toothed; its flower-heads measure about three inches across, and the colour is a deep rich intense crimson scarlet. The flower-heads being well-displayed just above the mass of elegant foliage, are very beautiful, and we have no hesitation in saying it is much the best variety of this Dahlia which we have yet seen, though they are all beautiful, and make charming border flowers.

D. GRACILIS CUPREA (fig. 2) is also a free-blooming variety, with flowers rather smaller than those of *gracilis superba*; and the florets are of a pale coppery red, somewhat darker around the disk. It is very effective in contrast with the other forms.

D. GRACILIS LUTEA (fig. 3) is very dwarf and dense in habit, and produces abundantly its flower-heads of a pale chrome-yellow colour, which are both showy and effective.

Other varieties which can be recommended, and which together make a pleasing and interesting series, are:—*D. gracilis fulgens*, which most nearly resembles *D. gracilis superba*, being equally free-blooming and brilliant, the flower-heads being of a bright crimson scarlet, but some shades paler than in that variety; *D. gracilis ignea*, which has still more narrowly cut leaves, less distinctly serrated, and the florets are of a brilliant fiery orange-scarlet. The foregoing were all raised in the Chelsea Botanic Garden in 1879, and consequently their profuse blooming qualities, and their great decorative value have been well tested.—T. MOORE.

PITTOSPORUM UNDULATUM.

AS a light, graceful standard for filling up space in the conservatory, or for standing out on terraces in summer, this plant is well worthy of general cultivation, since it accommodates itself to almost any kind of well-drained soil, bears cutting back like a standard bay, with which it forms a very pleasing contrast wherever the two can be used together, and being a native of New Zealand, a cold house is quite sufficient for its protection in winter. Some years ago a gentleman returning from New Zealand brought home seeds from which I have raised four standards on clean stems, seven feet high, with handsome heads, four feet through, evenly, but not densely, clothed with crisp, pale green leaves, delicately margined with pink, which produces a beautiful effect when seen by gas or lamplight. When quite small it forms a fresh interesting plant for table decoration, and being but little known, it makes an agreeable change from the ordinary run of things used for this purpose.—W. COLEMAN, *Eastnor Castle Gardens*.

SELECT CHRYSANTHEMUMS.*

COMING into bloom to meet the late autumn flowers, and remaining to greet the early snowdrop, the Chrysanthemum, which cheers and brightens one's existence throughout the most dreary and gloomy time of the year, is truly invaluable. It is now quite time, while the plants are young, to complete all collections intended for blooming in the coming autumn.

The last season was an exceptionally good one for the Chrysanthemum in this foggy, smoky, and acid atmospheric region; the mild weather from November to January allowed ventilation to be freely applied, and to this is doubtless attributable the ability to keep the plants free from mildew and to prolong the bloom. There were good blooms at Stakehill early in October, and on January 26th this year I cut my last bloom from a plant of Hero of Stoke Newington, which on New Year's Day bore twenty-three buds and blooms in all stages, from fully-expanded four inches in diameter, to buds showing colour, all of which

bloomed out, the plant at the last only showing slight traces of mildew. About the middle of January I cut down—with the exception of the Hero before mentioned—all my remaining stock of plants, and was enabled to deck the dinner table with fair blooms of Dick Turpin, Fleur de Marie, Gluck, Ethel, Madame Montels, Peter the Great, and Miss Margaret. My collection consisted of 242 plants in three houses.

For the guidance of others I add a list of the plants I have selected and am growing for the coming season's bloom. I have discarded many well-known varieties for their habit of growth, mainly because they are too weak to support the blooms in an erect position: such are Prince of Wales, Dr. Brock, Beverley, and others. The selection is based on twenty years experience in growing the Chrysanthemum, carefully noting them each season. The number of plants of each variety indicates the relative positions which they hold in my estimation. The list is fairly representative, and includes all classes and colours, except the very early bloomers:—

Incurved Varieties.

10 Mrs. George Rundle.	4 Jardin des Plantes.
6 George Gleuny.	3 Princess Teck.
6 Mrs. Dixon.	3 Hero of Stoke Newington.
6 Pink Venus.	2 Lady Slade.
6 Blonde Beauty.	2 Beethoven.
6 Barbara.	2 Lady Hardinge.
6 Empress of India.	2 Prince Alfred.
4 Antonelli.	2 Little Pet.
4 Nil Desperandum.	2 Queen of England.
4 White Eve.	2 Golden Queen of England.
4 Golden Empress of India.	
4 Lady Talfourd.	

Recurved Varieties.

6 Sœur Melanie.	2 President or Dr. Murray.
4 Progne.	2 Ariadne.
4 Julie Lagravère.	2 Jewess.
2 Dr. Sharpe.	

Japanese Varieties.

10 James Salter.	2 Fair Maid of Guernsey.
6 Elaine.	2 Ethel.
2 Peter the Great.	

Pompons.

6 Mrs. Dix.	3 Sainte Thais.
6 Argentine.	3 Golden Ste. Thais.
4 Model of Perfection.	3 Aurora Borealis.
4 Saint Michael.	3 Snowdrop.
3 Middle. Marthe.	3 Miss Wheeler.
3 Golden Middle. Marthe.	2 White Cedo Nulli.
3 Bob.	2 Golden Cedo Nulli.
	2 Lilac Cedo Nulli.

Large Anemone-flowered.

2 Gluck.	2 Miss Margaret.
4 Fleur de Marie.	

* Abridged from the "Gardeners' Magazine."

Anemone-flowered Pompons.

4 Madame Montels.	3 Antinous.
4 Jean Hachette.	3 Mr. Astie.
4 Dick Turpin.	2 Marie Stuart.

That gem of a pompon, Argentine, is omitted from the lists of well-known dealers, and I fear is not so well known as its merits deserve. This variety is of a pure white, with well-formed flowers, and has a habit of blooming quite unique, for it produces its flowers in spikes of from seven to fifteen blooms each. It needs no disbudding, as each bud from the terminal to the lowest on the stem produces a perfect flower; the lower flowers are smaller, but still useful for cutting; it has also the further good property of keeping its blooms fresh and lively longer than any other variety that I am acquainted with. I had spikes last season, each flower fully opened, which kept their beauty undiminished for over four weeks. It would be a good investment for those who grow flowers for sale to grow Argentine in quantity.—S. BARLOW, *Stakehill House, Castleton, near Manchester.*

VINES AND VINE CULTURE.

CHAP. XIX.—SELECTIONS OF VARIETIES.

IT being practically impossible in any one establishment to cultivate all the varieties of Grapes that have been described, notwithstanding that each variety may possess some special merit, it has been considered desirable to follow up the descriptive notes by naming a selection of the varieties best adapted for particular purposes, and this we now proceed to do.

I. GRAPES FOR POT CULTURE.

1. *Black Hamburgh*: the “beau ideal” of what a pot Grape should be; in the nurseries it is grown for this purpose to a hundred times the extent of any other variety. 2. *Royal Muscadine*: grown for its earliness and certainty. 3. *Foster's Seedling*: an excellent variety, and certain. 4. *Madresfield Court*: produces fine handsome bunches. 5. *Royal Ascot*: very free-fruited, and better suited for pot culture than for any other purpose. 6. *Black Alicante*: produces very handsome bunches, which have a fine appearance.

All the early Sweetwaters are also particularly well suited for cultivating in pots. The

Muscat of Alexandria and some others of the high class Grapes are on the contrary very unsatisfactory.

II. GRAPES FOR OPEN-AIR CULTIVATION.

The choice is somewhat limited. 1. The one variety which excels all others for this purpose is the *Royal Muscadine*—the *Chasselas de Fontainebleau* of the French; for a number of years prizes were offered by the Fruit Committee of the Royal Horticultural Society at South Kensington for the best Grapes grown in the open air, and all the prizes were successively won by the *Royal Muscadine*. 2. *Black Hamburgh*: this variety in fine seasons is sometimes very good. 3. *Black Prince*: produces fine long handsome bunches, but requires a fine season to become well ripened. 4. *White Frontignan*: this we have seen very good.

Dutch Sweetwater ripens its fruit very fairly, but frequently sets badly. *Black July*, *Miller's Burgundy*, *Grove End Sweetwater*, *Pitmaston White Cluster*, and *Ascot Citronelle* are all well worthy of a trial for this purpose.

III. GRAPES FOR A GREENHOUSE.

1. *Black Hamburgh*: there is no better kind for the purpose. 2. *Royal Muscadine*. 3. *Madresfield Court*. 4. *Foster's Seedling*.

IV. GRAPES FOR CULTIVATION BY AMATEURS.

For this object the varieties require to be of excellent constitution, free-bearing, and good in quality and appearance. 1. *Black Hamburgh*. 2. *Madresfield Court*. 3. *Foster's Seedling*. 4. *Royal Muscadine*. 5. *Alicante*. 6. *Muscat of Alexandria*, which requires special treatment.

V. GRAPES FOR MARKET OR SALE.

Appearance is the chief recommendation in this class. 1. *Black Hamburgh*: may be accepted as the very chief, since there is no Grape for which so ready a sale can at all times be secured; indeed other black Grapes are scarcely saleable whilst *Black Hamburghs* are to be had. 2. *Muscat of Alexandria*: although superior in merit and realising double the price of *Black Hamburgh*, the sale is limited in comparison, and it is much more expensive to produce in good condition. 3. *Gros Colman*: this variety sells well, especially in

London, from its extraordinary size, and fine handsome appearance. 4. *Alicante*: the handsome appearance of this Grape, and its late keeping and free-bearing properties make it a very favourite market variety. 5. *Lady Downe's Seedling*: the remarkable keeping properties of this Grape, and its excellent quality as a late sort, render it in much demand. 6. *Madresfield Court*: as an early sort this variety has of late made its appearance in market, and takes well. Mr. Wilmot, of Isleworth, is cultivating it to some extent for this purpose. 7. *Trebbiano*: as a late white Grape this is grown to some extent; we would, however, recommend White Tokay in preference. 8. *Duke of Buccleuch*: Mr. Thomson, who grows this variety somewhat extensively, states that he realises a much higher price for the fruit than for that of any other sort; its enormous size, fine appearance, and excellent quality rendering it a great favourite amongst those who know it. 9. *Royal Muscadine*: this as imported from France is sold in immense quantities at a cheap rate, but is seldom cultivated in this country for the purposes of sale.

No other varieties of Grapes are cultivated to any extent, or if so, the sale and demand for them is extremely limited.

VI. GRAPES FOR EXHIBITION.

Here again it is appearance that is the first consideration, the quality, and even the difficulty of cultivation, being to a great extent overlooked. For the best six black exhibition varieties we would select: 1. *Black Hamburgh*; 2. *Alicante*; 3. *Madresfield Court*; 4. *Gros Guillaume*; 5. *Gros Colman*; 6. *Alnwick Seedling*, or *Lady Downe's Seedling*. For the best four white varieties for exhibition purposes we select: 1. *Muscat of Alexandria*; 2. *Trebbiano*; 3. *Buckland Sweetwater*; 4. *Foster's Seedling*. The most telling of the black Grapes is no doubt the *Alicante*, and among the whites the *Muscat of Alexandria*.

VII. GRAPES FOR LATE KEEPING.

1. The premier place here must be given to *Lady Downe's Seedling*, a variety which, if well grown, will keep as long, if not longer, than any other. 2. *Mrs. Pince*: this variety keeps well; it shrivels up rather than rots,

and maintains its rich Muscat flavour to the very last, but generally loses colour. 3. *Alicante*: this is the popular variety amongst market growers on account of its handsome appearance; it is apt, however, to lose quality if kept long. 4. *Gros Colman*: this variety secures the highest price and keeps well. 5. *Alnwick Seedling*: a very excellent keeping sort. 6. *Gros Guillaume*: this is a favourite on account of the great size and fine appearance of the bunches, and it keeps well.

Amongst white varieties there is nothing to equal for appearance, quality, or keeping properties, the *Muscat of Alexandria*. 2. The second place we give to *White Tokay*. 3. *Trebbiano*: this variety is meritorious also for its large bunches. 4. *Raisin de Calabre*: this variety will perhaps keep longer and in better condition than any other sort, but in point of flavour it is poor. Late white Grapes are not nearly so much in repute as the black sorts; and they are remarkably easily bruised and disfigured, so that they are difficult to send to market in good condition.

VIII. GRAPES FOR EARLY FORCING.

1. So much is allowed for appearance, that even amongst the sorts grown for the earliest supply, the *Black Hamburgh*, although neither the earliest nor the best in quality, is the variety generally accepted and relied on. It is strange that an inferior, it may be half-ripened, bunch of the *Black Hamburgh* is preferred to other smaller, but infinitely superior sorts; there is no variety, however, that forces more easily, and this is a very great recommendation. 2. *Madresfield Court*: this variety is at last being put in its proper place as a first-class early Grape. 3. *Duke of Buccleuch*: this is truly superb for this purpose, and ripens sometimes before the *Black Hamburgh*. 4. *Royal Muscadine*; 5. *Foster's Seedling*; and 6. *Aseot Citronelle*, are all very excellent as early varieties.

IX. THE HIGHEST QUALITY GRAPES.

1. *Muscat of Alexandria*: this is decidedly the best and handsomest of all Grapes. 2. *Chasselas Musqué*: this is by some considered too luscious; could it be grown freely it would no doubt be much more in repute, but its inveterate habit of "cracking" renders it

almost worthless. 3. *Grizzly Frontignan*: very rich, but very unattractive in appearance. 4. *Duchess of Buccleuch*: exceedingly rich. 5. *Ferdinand de Lesseps*: peculiarly rich and pleasant in flavour. 6. *Muscat Champion*: large and luscious. 7. *Duke of Buccleuch*: very large and refreshing in quality. 8. *Mrs. Pince*: as a late variety this is extremely fine in quality.

X. GRAPES PRODUCING THE LARGEST BUNCHES.

1. The largest bunch on record was that grown by Mr. Curror, of Eskbank, on a vine of the *Trebbiano*; its weight was 26 lb. 4 oz. 2. Next comes the *White Nier*; bunches respectively weighing 25 lb. 15 oz., and 19 lb. 5 oz. have been grown. 3. *Gros Guillaume*, with a bunch weighing 23 lb. 5 oz. 4. *Syrim*: Speechly's famous bunch of 19 lb. 5. *Black Hamburgh*: one bunch of this was grown by Mr. Hunter, of Lambton, weighing 21 lb. 2 oz., and another 13 lb. 2 oz.

XI. THE LARGEST BERRIED GRAPES.

1. *Gros Colman*: berries measuring 4 in. in circumference are recorded. 2. *Canon Hall Muscat*: berries $3\frac{1}{2}$ to 4 inches. 3. *Duke of Buccleuch*. 4. *Waltham Cross*. 5. *Mill Hill Hamburgh*. 6. *Dutch Hamburgh*. 7. *Muscat Champion*.

XII. GRAPES OF PECULIAR INTEREST.

1. *Black Corinth*: the Grape which produces the Currants of commerce. 2. *Black Monukka*: the seedless Grape, with crackling flesh of singular but agreeable flavour. 3. *Strawberry*: the ripe fruit perfumed and scenting the air as with ripe strawberries or raspberries. 4. *Ferdinand de Lesseps*: of a peculiarly delicate flavour, and highly perfumed. 5. *Ciotat*: the leaves very much cut and lacinated, hence called the Parsley Vine.

Several varieties of Grapes are remarkable for handsomely-coloured foliage in autumn.—A. F. BARRON.

FUCHSIA FULGENS.

WHY this fine plant should be so neglected is surprising, as it is most ornamental when well-grown, and as a conservatory plant is invaluable. It seeds freely, and by this means a large stock may soon be raised. Large old plants are the most useful, as after they have

done flowering in the autumn, they can be put away for the winter where they will be safe from frost. Early in spring they should be pruned back, and most of the soil should be removed from the roots. They should then be potted in a compost of peat, loam, and a little rotten dung, and be placed in a vinery just started. In the course of three or four weeks' time, when they begin to fill the pots with roots, they should be shifted into the pots they are intended to flower in, using more rotten dung in the compost than at the first potting. In a few weeks they will begin to flower, and will during the summer months be objects of great beauty. The plants will require liberal supplies of water during the season of growth and flowering up to the time when they begin to cease growing and flowering; water should then be gradually reduced in quantity, and towards autumn should be withheld altogether, when they may be put away until spring.—M. SAUL, *Stourton*.



ZINNIA ELEGANS FLORE-PLENO.

DOUBLE ZINNIAS.

AMONG the old-fashioned annuals a conspicuous position must be assigned to *Zinnia elegans*, whose bold flower-heads of distinct and well-marked colours were really striking and ornamental. But whatever beauty might be assigned to the original single form, the double forms which were introduced about a quarter of a century ago, and have now become familiar, are far more attractive; indeed, when well grown in a favourable situation they stand in the very front rank of decorative hardy flowers, fully equal in beauty to the Asters, and not so fastidious as regards their treatment. They

make grand beds, either mixed or planted in separate colours, and patches of about three plants set at five or six inches apart in the mixed borders are very effective.

Like most other free-growing double flowers the double Zinnias delight in and indeed require a rich and deep soil. Where it can be done the bed should be specially prepared for them by breaking up the ground two spades' deep, and working in a good dressing of good old hot-bed manure, a considerable portion of which should be incorporated with the lower portion of the stirred soil, so as to be out of the way of the roots while the plants are young, and to come in to nourish them later on when their roots have had time to strike deeper, and their flower buds begin to develop.

The seed may be sown at the middle or towards the end of April in a pit or frame where a mild warmth is kept up. They soon germinate in this position, and then require to be set up close to the glass so as to prevent them from becoming drawn up. The seeds should be sown thinly, and when the young plants are well up they should have all the light that can be given them, and a supply of fresh air daily, the latter being increased in quantity as they progress. When the plants are large enough to handle, that is, when the first pair of leaves are starting from between the cotyledons, they should be pricked out, an inch or two apart, in boxes of rich light earth, so as to encourage the promotion of abundant fibrous roots, and also to act as a check to prevent them growing up spindly, for sturdy stocky plants are much more satisfactory to bed out. If by any mischance the seedlings should show signs of damping off they should have this pricking out or transplantation at an earlier stage, indeed as soon as the evil is observed, as by this means it may generally be kept in check.

When the young plants are established in the boxes, and have been well inured to air, they may be set in a shallow cold frame, when they may still have abundant light, and on mild days may be freely exposed by removing the sashes during a portion of the day, at first for an hour or two, but gradually increasing the exposure till they are able to stand open the whole day when the weather

permits. If well hardened in this way they may towards the end of May be planted out in the beds prepared for them, and where they are to bloom. In planting out they should have plenty of room to develop as, if well fed, they will branch very freely; the rows may therefore be set out at one foot apart, and the plants should be the same distance asunder in the rows, in order to have space for the development of their branches. The situation chosen for them should be warm and sheltered, and fully exposed to the sun, as they like a bright light, which improves their colours. The young plants should at first have a small stick to steady them against wind, but when they begin to get established they will need no further support, but will be able to bear up against all ordinary conditions of wind or rain. When the bloom buds first show a good mulching of rich manure should be applied, and copious waterings must be given whenever dry weather sets in. With this treatment the plants should bloom well, and give a good return for the attention paid to them.

The accompanying figure gives a good idea of the habit of the double-flowered *Zinnia elegans*, which seldom exceeds two feet in height, and yields various colours, including white, yellow, buff, orange, scarlet, crimson, rose-colour, and purple—some of these in very rich and pleasing shades. A mixed group has a very pleasing effect, but if it is preferred the principal colour can be purchased separately, and come sufficiently true for all ordinary arrangements.—T. MOORE.

SHADING FOR ORCHIDS.

THIS is a subject of the greatest importance in Orchid culture, and one that is often overlooked until it is too late—the mischief being done. It should be understood that Shading does not consist of merely daubing upon the glass some opaque material, such as paint, "summer cloud," whitening, or the like, which, though all very well as palliatives in positions where rollers cannot be used, such as at the ends and sides of a house, are greatly to be deprecated as a means of shading the roof: for this reason, that in our English climate we are so subject to sudden changes of the weather that, were such

a permanent shading to be used, we should frequently—especially during dull weather—have our plants in comparative darkness, when they should be getting all the light possible. This cannot fail to lead to bad results, and produce a sickly growth.

What is required is a strong durable material that will wear well, and where rollers are used, stand the strain upon it. Some growers use thick canvas; indeed we have done so ourselves many years ago, but, by experience, we have found out the ill-effects of it, for when we employed this kind of shading we found the plants under its influence became weak and sickly, producing small puny flower-spikes. A lighter shading was then employed, and the difference was marvellous; the plants assumed quite a different aspect. It was at this time that we were exhibiting at Chiswick the fine specimens of East Indian Orchids—*Aerides*, *Saccolabiums*, *Vandas*, *Dendrobiums*, and many others—such as we seldom see equalled now. Since then we have used thinner shadings with the best results. Our *Vandas* thus treated have always been strong and healthy, with broader foliage, producing their flower-spikes as often as three times a year, with the flowers of a good colour, lasting a long time in perfection; in fact we are never without flowers, always having a good display, more particularly of the *suavis* and *tricolor* section. Some people imagine *Vandas* do not flower till they attain a large size, but such is not the case if they are properly grown, and a thin shading is used.

Our experience leads us to the belief that all Orchids, with a few exceptions, require a thin shading—that is to say, one that, while warding off the direct rays of the sun, will allow the light to enter through it. To arrive at this result we use a strong, durable, cotton netting, woven in small squares, close enough to exclude the rays of the sun, while the light penetrates it with but little interruption. This netting stands exposure to the weather much longer than canvas, and on that account is cheaper in the long run. We have used this material for some years, in the case of cool Orchids, Mexican, and East Indian kinds, with the best results, the netting being attached to rollers with appropriate gear. For the cool Orchid houses we employ raised blinds, which

can be managed with but little trouble. Many growers keep their blinds on during the winter months, and let them down at night to keep out frost. We, however, have always found that where the houses are well heated, such protection is not required; and besides, this exposure to the weather in the winter time is very detrimental to the blinds. In the winter, therefore, we take them off the house, and put them in a dry place until they are required again in the ensuing spring.

During the summer months we have found Raised Blinds very beneficial to the growth of Orchids, especially to those requiring cool house culture. When the hot summer sun is shining upon the glass, it is very difficult, where raised blinds are not employed, to keep the temperature sufficiently low. The glass roof of the structure upon which the sun is shining, becomes very hot, even when shaded in the ordinary way; but if raised blinds are used, a current of air is allowed to pass over the entire surface of the roof, and the glass is kept comparatively cool. The effect of this is, to decrease very appreciably the internal temperature of the house; and the moisture, which would otherwise be dried up by the burning heat of the sun, produces a nice humid, genial atmosphere in which Orchids delight.

Having thus far referred to the advantages to be derived from the use of this method of shading, we may now explain briefly the mode of construction. Supposing that the house to be furnished with raised blinds is an ordinary span-roofed structure, it is necessary in the first place to provide a second ridge, elevated about six inches above the top of the existing one. This should not consist of a solid plank, but of a strip of timber sufficiently strong to bear the weight and strain of the blinds and roller, and should be supported on blocks of wood placed at intervals in order to allow the current of air from below to find an outlet, which would not be the case if a solid ridge-board were adopted. Having arranged for the ridge, the next thing is to provide supports for the rollers. Either wood or iron may be used for this purpose, but we have found iron to be the lightest looking and the most durable. Where the length of the rafters does not exceed say eight feet, half-inch rod iron will be

found to be strong enough, and this should be cut into proper lengths, with the lower end turned up in a semi-circular form, so as to catch the roller when it descends, and prevent it from running off the supports. These supporting rods should be fixed to the bars or rafters of the house, about six inches above the woodwork, by being welded to vertical iron stays, which latter should be flattened out at the base, and provided with holes so that they can be screwed to the rafters or bars of the roof. In this way a strong support for the blinds to roll upon will be formed. The blinds themselves can be attached to the elevated ridge in the ordinary way, and the gearing usually employed for the purpose will be found to answer well for pulling them up or down. Many Orchid growers have already adopted these raised blinds with very beneficial results.—B. S. WILLIAMS, *Victoria Nursery, Upper Holloway. (Orchid Album.)*

ANNUAL ASTERS.

THE China Aster, *Callistephus chinensis*, is one of the most beautiful of our annual flowers. It is said to have been first raised in the Jardin des Plantes at Paris, from seeds received direct from China, and under cultivation has yielded a great variety of forms, not only in their colour, but also as regards the habit and general character of the plant and the structure of the flower-heads, which latter have not only become double, but in some cases the disk florets though retaining their normal tubular form have become more prominent and highly coloured, while in others they have become altered in form so as to resemble the strap-shaped florets of the ray—the former being the quilled, the latter the pæony-flowered Asters of gardeners. Perhaps the most beautiful of the modern varieties are those which are called Crown Asters, in which the ray florets are of a distinct colour from those which occupy the centre.

Mr. James Betteridge, of Common Hill, Chipping Norton, Oxon., is one of the leading growers of Asters in this country, and the effect produced in his nursery during the blooming season by some 120,000 plants in full flower, ranged in four-foot beds, is very imposing. His very successful mode of cul-

tivation was fully described last year in the *Field* newspaper, from which we make the following extracts:—

“For several years after I commenced the culture of Asters, I always sowed the seed in bottom heat; but during the last decade the plan adopted has been to sow in a cold frame, under glass, some time between March 26 and April 26, in drills 6 in. apart, and not too thick in the drills. A few days suffices to bring them above the soil, when a liberal supply of air must be given, or the plants will be weak. When large enough, they should be pricked out into another cold frame, slightly shading, where they will soon be established; and after they have attained strength enough to handle well, plant them out into the beds or quarters where they are to bloom, in well-manured soil, being careful not to break the tender fibres of the roots. Let the rows be 1 ft. apart, and plant the strongest plants 12 in. from each other; this should be done in showery weather, when the plants soon get established. If the weather be hot and drying, a little watering will be necessary till they are rooted; afterwards keep them clear of weeds by hoeing among the plants. About the first week in August top-dress with rotten manure from an old hot-bed, giving a good soaking all over if the weather continues dry. After this, if the blooms are required for exhibition, the plants must be tied out to small stakes. As soon as it can be determined which buds will produce the best blooms, thin out, or disbud, leaving about five or six blooms on each plant. Exhibition blooms should be of large size, with full high centres, and deep distinct colours, with solid petals. To secure these qualifications in this England of ours, shading of some kind is necessary.

“Asters like a deep rich soil, and it is only under such conditions that really fine flowers can be obtained and the plants induced to hold out should dry weather set in. Planted in the ordinary way they are mere weeds compared with such as are well fed and can get their roots down deep in search of moisture; and when they can do this, the hotter the weather the better it suits them. Confined to the top shallow crust of earth, they are soon dried up and the blooms starved; and this is why we so frequently see the poor puny plants that are to be found in borders, where, instead of being able to grow and develop themselves, all they can do is to struggle on for existence.

“The best way to manage them is to dig and cast off the top spit to one side, handy to be returned to its place again; and then trench and break up the soil below, working in with it at the same time plenty of short



W H Fitch del

Apple

Chrom. Strobant Grav.

Werder's Golden Reinette.

manure, thoroughly decomposed, which will have the effect of attracting the roots and affording them ample assistance just as they most require it, when expanding and perfecting their bloom. Trenching, as usually done, brings the crude earth to the surface, and buries that which has been exposed to the ameliorating influences of the atmosphere—a fact that should be borne in mind, as it takes years to get it into the condition in which plants will lay hold of it and start away freely. In very light soils a few barrow loads of clay, chopped up finely and mixed well in, has a capital and lasting effect, and will do more in producing fine Asters than any other help that can be afforded. The thing to aim at is to keep the bottom cool and moist, and, this done, all else is clear sailing, as then, if the weather be favourable, the plants will take care of themselves. When grown in groups of three in a border, similar preparation must be made, or neighbouring plants already in possession are sure to rob them and cut short their beauty long before the autumn sets in.

“If the autumn be fairly genial, there is no difficulty in saving Aster seed. Do not allow any *one plant to carry more than three or four blooms*, and these the finest. If needful to protect from heavy rain, the covering should admit of free circulation of air among the flower-heads. Gather when ripe, and clean through a wire sieve. Carefully selected seed usually produces as good blooms as those from which the seed was saved.

“Many persons have written about the kinds best suited for pots; but our practice has been to sow in the open in May, keeping the varieties separate, and then to lift about the middle of September, when the buds have partially expanded, and put three plants into an 8-inch pot, pressing the soil firmly, shading for a few days, and then placing them in a cold greenhouse, where they will bloom late on through the autumn. Such as these have a splendid effect in a conservatory among the small kinds of foliaged plants, the only other plants equal in point of colour being the *Chrysanthemums*.”—J. B.

APPLE, WERDER'S GOLDEN REINETTE.

[PLATE 562.]

AMONGST Apples this is *par excellence* the most beautiful variety in regard to form and outline that is in cultivation. All the fruits are so singularly even and regular, that they appear as if they came from one mould, there being scarcely any difference between one apple and the other. In general appearance they are not unlike small well-formed specimens of the Blenheim Pippin; and the texture of the flesh is of the same character, but somewhat firmer. The extraordinary beauty is derived more especially from the eye, which is not only

remarkably broad but is placed in a very shallow basin, thus becoming quite a prominent feature.

The fruit may be described as rather below medium size, roundish, very even and regular in outline. *Eye* large, wide, with short segments prominently placed; *stalk* short, slender. *Skin* greenish-yellow, streaked with red on the exposed side. *Flesh* greenish-white, firm, yet tender and melting, sweet and pleasant. An excellent dessert apple, in use from October to February. The tree is a great bearer.—A. F. BARRON.

THE EFFECT OF CONFINEMENT, OR OF POOR SOIL ON THE ROOTS OF TREES.

WHEN during the last few months we have been occupied in transplanting forest-trees in large numbers, we have been particularly struck with their condition at the roots when planted in poor soil, or where they had not their liberty to extend freely, as compared with that of those which were growing in richer soil or where they could extend without let or hindrance. Plants confined at the roots or in poor gritty earth make little growth. Yews growing in sandy poor soil were matted with fibry roots and lifted with the greatest ease and safety,

but it was not so with those which were in rich deep soil; the roots in that case extended outwards and downwards to a great distance and the risk in removal was thus proportionately increased. The growth of wood was also gross and luxuriant and more likely to suffer by removal. Wellingtonias, Austrian firs, Scotch firs, and others which were removed from soil where holes were made and the solid ground left untrenched about them, were healthy, the growth stiff, and the balls matted with fibry roots; but, where rapid growth and gigantic trees are wanted in the shortest pos-

sible time, we would in every case advise the thorough trenching of the soil before planting.

The same applies to fruit-trees. When size is wanted in preference to fruit (at least for a number of years), we would always advise trenching, and when the land is poor a quantity of manure may be added. The medium practice for ordinary orchards is the best. Few persons wish to wait longer than is necessary for fruit, and by curtailing the roots it may be had more speedily. Some affirm that rich soil is more productive of roots than poor soil, but in no case have we ever found this to be so. Large strong roots are always formed in rich land, but in gritty and poor soil abundance of fibry roots are met with.

In illustration of this subject reference may be made to Vines grown in rich *versus* poor soil. We know two of the largest nursery firms in which the Pot Vines are established by methods quite opposite to each other. In the one, after the plants are fairly into active growth, strong rich soil is used; and in the other, gritty and somewhat poor loam. The former plan produces stronger wood and larger roots, but the latter brings much better ripened canes, and the pots are crammed with fibry roots. On several occasions when we have had to lift Vines it has been a notable fact that the worst rooted plants have been in extra rich soil, and the best and most fibry roots have been found in sandy loam by no means rich. When roots are thus abundant, it is not at all difficult to give them good food suitable to their wants, either by applications of liquid manure or by top-dressings of good solid manure.

To prevent the roots of fruit-trees running across the border without filling it with their rootlets and perhaps in this way getting into bad soil, it is a good practice to build barriers across with broken bricks and lime rubbish, then abundance of small roots will be formed, which do well when they are again at liberty.—M. TEMPLE, *Impney Hall*.

HOLLIES INJURED BY MICE.

WHEN walking the other day through a shrubbery extensively planted with holly, I was rather surprised to find, after so mild a winter, a great number of fine young trees, eight to nine feet high, completely barked round, apparently by rabbits

or hares; but upon close examination I found that some of the trees had been stripped and peeled six or seven feet upwards from the ground, the most slender shoots being as neatly dressed off as if they had been scraped with a sharp knife. Knowing that the mischievous rodents, which sometimes have to carry more than they deserve, could not have done it, I was soon able to satisfy myself that the pretty little voles, shooting through their runs in the dry grass, were the real culprits; and much as one may enjoy seeing them in the woods and hedges, I certainly wish they would find less expensive food, or that game-keepers, who now have little to preserve, would leave off killing their natural enemies the owls, and our soft-padded feline friends of the hearth, who, if they do take a young pheasant when temptation is over-strong, certainly assist in a very intelligible way in maintaining the balance so ruthlessly upset by a class of men who have blundered rough-shod over every other interest on an estate in order to secure a good show of game.—W. COLEMAN, *Eastnor Castle Gardens*.

REGISTER OF NOVELTIES.

NEW PLANTS.

ADIANTUM VICTORIAE, *Moore* (*Gard. Chron.*, N.S., xvii., 428).—A very handsome dwarf Maidenhair, likely to prove invaluable for pot culture and as a market plant. It forms close low tufts 4–6 inches high, crowded with bipinnate fronds of a rich green colour, and with rather large bluntly conical or sub-rhomboidal pinnules, bearing oblong sori. It was raised by Mr. Bause, and is supposed to be a hybrid between *A. Ghiesbreghtii* and *A. decorum*, but appears more like a dwarfed form of *A. farleyense*; 1st-class Certificate R.H.S., March, 1882.—General Horticultural Co. (John Wills).

ÆCHMEA PANICULIGERA, *Grisebach*.—A handsome West Indian Bromeliad, having ligulate spiny-toothed leaves abruptly enlarged at the base, and with a shortly acuminate apex, the flower scape several feet high, of a reddish-purple clothed with white down, supporting a compound panicle, 1–2 feet long, of numerous rose-coloured flowers having bright purple projecting petals, the rachides bracts and bractlets all rose-coloured.—W. Bull.

ALOE ABYSSINICA PEACOCKII, *Baker* (*Bot. Mag.*, t. 6620).—A very fine Abyssinian Aloe, flowered in Mr. Peacock's loan collection while at Kew. It is stemless, with a rosette of 20–30 lanceolate leaves, which are 1½ ft. long, dull glaucous green with toothed margins, and produces branched panicles, supporting at the ends of the branches a dense oblong raceme of lemon-yellow cylindrical flowers an inch long.—J. T. Peacock.

ALSOPHILA REBECCÆ, *F. Mueller*.—A fine new tree fern from Queensland, having a slender stem, supporting on short black-scaled stipes the elliptic bipinnate firm-textured glabrous fronds, the larger pinnae of which bear numerous stalked linear-acuminate pinnules with an unequal subcordate base and

an ineiso-erenate margin; distinct in character; 1st-class Certificate R.B.S., March, and R.H.S., April, 1882.—W. Bull.

ANDROMEDA JAPONICA.—An old and almost forgotten evergreen shrub, not quite hardy, having dark green lanceolate obovate leaves, and large drooping panicles of white pitcher-shaped blossoms; 1st-class Certificate R.H.S., March, 1882.—A. Waterer.

ANTHURIUM KALBREYERI, *Masters* (*Gard. Chron.*, N. S., xvi., 116, fig. 27).—A remarkable climbing Arad from New Grenada. It has cylindric leaf-stalks, thickened at the top, where they each bear, in palmate fashion, nine obovate oblong acuminate sinuate leaflets, thick in substance, glabrous and rich deep green, the distal leaflets, those farthest from the stem, being twice the length of those next the axis; a remarkably handsome stove foliage plant.—Veitch & Sons.

ANTHURIUM LUCIEN LINDEN, *Hort.*—A reat-growing stove perennial of the Arad type, with ovate acuminate slender-stalked dark-green leaves about a foot high, and somewhat taller scapes bearing oval-lanceolate erect white spathes which exceed the spadices; it is in the way of *A. Patini*, but has the spathes more erect; rather pretty.—B. S. Williams.

ANTHURIUM SCHERZERIANUM WOODBRIDGEI.—One of the finest and most brilliantly-coloured forms yet obtained. It is of bold vigorous habit with spreading dark green leaves, and broad spathes, nearly six inches long, of the most intense crimson-scarlet; 1st-class Certificate R.H.S., April, 1882.—J. Woodbridge, Syon House Gardens.

BEGONIA MARTIANA GRACILIS.—A very ornamental plant with tuberculous rhizomes, and pubescent fleshy branching stems, 2 ft. in height, bearing shining obliquely heart-shaped leaves, and shortly stalked brilliant rose-coloured flowers, as broad as a five-fringe piece. It was discovered by Dr. Parry near San Luis de Potosi, in Mexico. On account of its compact habit and brightly-coloured flowers it is recommended as a valuable decorative and market plant.—M. Lemoine.

CATTLEYA LUTEOLA, *Gardn.*—The same as *C. Holfordi* of gardens, according to Rehb. A fine yellow-flowered species from Brazil, with oval ancipitous, monophyllous pseudobulbs, and flowers 2 inches across of the colour of those of *Lælia flava*, the sepals narrow oval and blunt, the lip cucullate rounded and crenulate, velvety inside, white with a yellow disk.—*Var.* **FASTUOSA** has a large purple blotch on the lip; *Var.* **LEPIDA** is marked on the lip with purple veins.—F. Sander.

CATTLEYA MENDELII JAMESIANA, *Hort.*—A very fine form of this beautiful Orchid, producing large flowers, about 5 inches across, the broad sepals and petals of a delicate rosy tint, marked with purple at the tips, while the large beautifully crisped lip is rich velvety purplish-rose in the front half, the discal portion golden yellow, and the throat pencilled with crimson on a whitish ground; 1st-class Certificate R.H.S., April, 1882.—H. James.

CATTLEYA WALLISII, *Rehb. f.*—A very chaste and beautiful species found by Mr. Seidl on high trees in the Upper Brazils. The flowers are large, 4–5 inches in diameter, sweet scented; the sepals and petals are white, the lip being also white with a large golden-yellow centre.—F. Sander.

CHIONODOXA LUCILLE ALBA.—A pure white-flowered variety of this beautiful new bulbous plant differing in no way from the type except in colour, and therefore a charming addition to hardy flowers.—T. S. Ware.

CRINUM MAKOYANUM.—A noble-habited stove Amaryllid, having a large bulb with a long neck a foot or more in length, bearing a spreading tuft of

strap-shaped leaves, and a tall flower-stem supporting an umbel of shallow cup-shaped flowers of a delicate pink colour, and running about six inches across; 1st-class Certificate R.H.S. and R.B.S., April, 1882.—B. S. Williams.

CYCLANTHUS DISCOLOR, *Hort. Bull.*—A remarkable stove plant with distinctive sheathing leaf-stalks supporting a bifid leaf-blade, the two divisions of which are lanceolate with a tapered point curved and more or less frilled at the edge. These leaves while young are streaked with a tawny orange hue which passes off as they become matured; from the United States of Colombia.—W. Bull.

CYPRIPEDIUM ALBO-PURPUREUM, *Rehb. f.*—One of the finest hybrid Cypripediums, raised between *C. Schlimii* and *C. Dominii*. The flowers are larger than those of *C. Sedeni*, whitish with pink on the borders of the lip and many spots of the same colour under it; the sepals have a slight pinkish tinge on their borders; the petals are wholly pinkish and twisted, hanging down and much exceeding the length of the lip; 1st-class Certificate at Manchester, August, 1881.—Veitch & Sons.

CYPRIPEDIUM CALURUM, *Rehb. f.*—A free-growing hybrid with handsome foliage, raised between *C. longifolium* and *C. Sedeni*, and having the characteristic scape of the *Selenipedium* section. The flower scapes appear at all seasons, and the flowers measure fully three inches from the tip of the dorsal sepal to the bottom of the pouch; the petals being rosy-edged and half as long again, narrower and more twisted, the distal half more deeply coloured, the infolded lateral lobes of the rosy lip as well as the interior of the sac, having larger and fewer spots, and the staminode being larger; 1st-class Certificate R.B.S., March, 1882.—Veitch & Sons.

CYPRIPEDIUM INSIGNE AUREUM, *Hort.*—A distinct and striking variety of this fine old Orchid, remarkable for the golden glow which pervades its flowers, the colouring of which in other respects is of the normal character, but the marked suffusion of golden-yellow imparts to the flowers a distinct and attractive appearance. It is said to be a later bloomer than other varieties; 1st-class Certificate R.B.S., March, 1882.—W. Bull; E. G. Henderson & Son.

DENDROBIUM SUPERBUM DEAREI.—A variety of the Dendrobe commonly but falsely called *D. macrophyllum* in gardens. It has pendent stems like the type, from which it differs in bearing pure white flowers, the lip not being blotched as in *D. s. Huttoni*; grown in the collection of Lieut.-Col. Deare, Englefield Green; 1st-class Certificate R.H.S., April, 1882.—Mr. Fagg.

ERICA MAWEANA.—A very pleasing hardy Heath with suberect much-branched stems, forming soft ornamental bushes 1–1½ ft. high; the flowers are autumnal, purplish-crimson, in clusters, after the style of those of *E. Tetralix* and *E. ciliaris*.—Backhouse & Son.

GENTIANA ARVERNENSIS, *Backhouse.*—A beautiful Alpine Gentian allied to *G. Pneumonanthe*, but more robust and tufted in habit, with firmer broader leaves, and much deeper blue flowers, which features sufficiently distinguish it. It is of easy culture, highly ornamental, and lasts many weeks in bloom.—Backhouse & Son.

LEEA AMABILIS, *Hort. Veitch* (*Gard. Chron.*, N. S., xvii., 492, fig. 77; *Journ. Hort.*, 3 s., iv., 283, fig. 56).—A handsome stove foliage plant of fruticose or semiseandent habit, introduced from North Borneo. The leaves consist of 4–6 lanceolate sharply pointed leaflets and a terminal one, 6 inches long, and when first expanded are bright crimson tinged with a rich shade of brown and marked with a pale rose band, but when mature are of a deep velvety bronze-green shaded with brown, relieved by a broad

silvery white central band. The coloration of this plant is novel and striking; 1st-class Certificate R.H.S., March, 1882.

NEPENTHES MORGANÆ, *Hort. Veitch*.—A beautiful hybrid obtained by Mr. Taplin, formerly gardener to the Duke of Devonshire, at Chatsworth. The plant was raised in America and named in compliment to Mrs. Morgan of New York. It is of a dwarf neat habit, with smooth pale green leaves having red midribs; the pitchers are flask-shaped, with two ciliate narrowish wings, and when fully grown are 6—8 inches in length. On the younger plants the pitchers are beautifully mottled with bright red and pale green; in the older plants they are almost self-coloured and blood-red; the lid is always pale green; 1st-class Certificate at Manchester, August, 1881.—Veitch & Sons.

ODONTOGLOSSUM LEEANUM, *Rehb. f. (Gard. Chron., N. S., xvii., 525)*.—A very pretty cool stove epiphyte, related to *O. deltoGLOSSUM*, and supposed to be a wild hybrid; it has flattened pseudobulbs, oblong leaves, and arching racemes of pleasing flowers in which the wavy lanceolate acuminate sepals and petals are bright yellow with numerous cinnamon spots, and the lip is bright yellow at the base, white upwards with a few spots, and a thick linear keel at the base going out into two toothletted lamellæ; the column also is white; native of New Grenada; 1st-class Certificate R.B.S., March, 1882.—Veitch & Sons.

ODONTOGLOSSUM MEMBRANACEUM ROSEUM.—A very striking variety, in which the flowers are of a darkish tint of rosy-lilac instead of white.—W. Lee.

ODONTOGLOSSUM PISCATOREI VEITCHII, *Hort.*—By far the most beautiful form of *O. Pescatorei* which has yet appeared. It is of the usual habit of growth, but the flowers are 2½ inches across, with broad sepals and petals, which together with the lip are white and heavily blotched with rich purple, which give to the blossoms a remarkably distinct and striking effect; the crest on the disk is orange-yellow; 1st-class Certificate R.H.S. and R.B.S., March, 1882.—Veitch & Sons.

PRIMULA LATIFOLIA, *Lapeyr.*—A beautiful dwarf herbaceous perennial of Auricula-like habit, in the way of *P. ciliata*, from the Swiss Alps—Grisons and Valais, with fleshy obovate ciliate leaves, serratedentate on the upper part, and producing umbels of ten or twelve very pretty magenta-rose flowers, three-fourths of an inch across, and having a conspicuous yellow centre; 1st-class Certificate R.H.S., April, 1882.—R. Dean.

RANUNCULUS HELDREICHIANUS, *Boissier*.—An attractive early-flowering Grecian Buttercup, a hardy perennial, growing about a foot high, the leaves tripartite with deeply incised lobes, the flowers about an inch across, numerous, of a pale chrome-yellow shining as if varnished.—G. F. Wilson.

RHODODENDRON FORSTERIANUM.—A very beautiful greenhouse evergreen shrub raised by Mr. Otto Forster, Lehenhof, Austria; it is a hybrid raised from *R. Veitchianum* crossed with *R. Edgeworthii*, and very much resembles the latter in its short-tubed much-expanded flowers, which are pure white with a yellow spot, undulated at the edges, very sweet scented, and nearly six inches across; the elliptic leaves are hairy and rugose; it is said to be quite barren; 1st-class Certificate R.H.S., April, 1882.—Veitch & Sons.

SAXIFRAGA SANCTA, *Grisebach*.—A very pretty dense-growing, spreading, tufted, rigid, Alpine perennial from Mount Athos, resembling *S. Burseriana*, but with deeper green leaves, which are ligulate-lanceolate acuminate and ciliate-dentate; the bright yellow flowers are borne in short dense spikes in the early spring.—Backhouse & Son.

ZAMIA MONTANA, *A. Braun (Gard. Chron., N. S.,*

xvii., 460).—A fine new Cycad, a native of New Grenada, and forming very handsome specimens. It has bulky stems 4—5 feet high, producing a symmetrical erect terminal tuft of leaves 4—5 ft. long, pinnate, with oblanceolate leaflets a foot or more in length, and 2—4 inches wide, abruptly acuminate. The inflorescence is unknown. It has been recently imported from Antioquia.—Shuttleworth, Carder & Co.

ZEPHYRANTHES CITRINA, *Baker (Bot. Mag., t. 6608)*.—An interesting new stove bulb, with 3—4 linear leaves, and funnel-shaped yellow flowers; it is distinguished by the rounded lobes of its stigma, and is a valuable acquisition horticulturally, because all the species of the genus which are in cultivation already, have either white, or more or less decidedly red flowers; a native of British Guiana.—Veitch & Sons.

ZEPHYRANTHES MACROSIPHON, *Baker (Gard. Chron., N. S., xvi., 70)*.—A pretty new Zephyranthes, and one of the largest flowered species of the genus, in this respect being nearly upon a par with *Z. carinata* with which it agrees in the bright red colour of its flowers; the flower scapes are slender, about a foot high, and bear a single bright rose-coloured, funnel-shaped flower of great beauty; native of Mexico.—Veitch & Sons.

NEW FLOWERS.

ABUTILON, Royal Scarlet.—Dwarf, branching, and extremely floriferous; flowers of waxy texture, brilliant fiery scarlet, the brightest in colour yet obtained; a fine novelty and a valuable acquisition, both as regards its habit and its splendid colour.—Veitch & Sons.

AMARYLLIS.—*Duke of Albany*: very rich bright vermilion, with lemon throat; extra fine colour and shape; 1st-class Certificate R.H.S., March; R.B.S., March, 1882. *The Giant*: a very large variety, 3½ ft. high, with six flowers in the umbel, the flower white flamed with rich carmine and striped with dark, the segments margined with white; very fine and striking; 1st-class Certificate R.H.S., March; R.B.S., March, 1882. *Indian Chief*: a very fine variety, with deep claret-crimson flowers, the segments barred with white, the base green; 1st-class Certificate R.B.S., March, 1882. *Shakespeare*: light scarlet with white bar on each segment, greenish and stained with red at the base, fine shape; 1st-class Certificate R.B.S., March, 1882.—All from Messrs. Veitch & Sons. *Miss Addie*: a grand variety of fine shape and substance, the flowers intense scarlet; 1st-class Certificate R. Caledonian H.S., April, 1882.—Mr. Palmer.

AZALEA, Mrs. F. Corbet.—One of the small-flowered group, but very distinct and pretty; the flowers are double, and of a bright carmine red. Useful as a small decorative bush for greenhouses; 1st-class Certificate R.B.S., March, 1882.—T. Todman.

BEGONIAS.—M. Lemoine announces of the tuberous group:—*Eclair*: a single-flowered sort of medium size obtained by crossing a descendant of Pearcei with Davisii; flowers large brilliant orange flushed with cinnabar. *Fulgurant*: a double-flowered variety obtained by crossing Louis Bouchat with Davisii; of dwarf but vigorous habit, abundant flowering, the colour a rich crimson. *Eclat*: of the same habit and origin as the preceding, with the flowers reddish orange.

BOUVARDIA, Priory Beauty.—One of the most beautiful of Bouvardias, producing freely its compact trusses of delicate pale satin rose flowers, a shade of colour quite distinct from the pale flesh of Intermedia or the light pink of Maiden's Blush; it is a sport from *B. elegans*, with which it agrees in habit.—Veitch & Sons.

CARNATION (PERPETUAL), Alice Duffield.—A variety with large full-double flowers, white faintly

flaked and pencilled with earmine; 2nd-class Certificate R.H.S., April, 1882.—G. Duffield. *Gloire de Nancy*: a fine circular flower, large, full, and of good substance; petals slightly fimbriated, pure white; the best white yet obtained in this section; 1st-class Certificate R.H.S., and R.B.S., July, 1881. (CLOVE) *Sir Archibald Grant*: a very distinct and well-formed flower of good substance; colour a rich clove-crimson shaded with maroon; 1st-class Certificate R.H.S., May, 1880.

CHRYSANthemums (JAPANESE).—*Lord Beaconsfield* (Salter): globular with broad incurved florets, salmon-red shaded with amber-yellow, the reverse nankeen-yellow; remarkably distinct. *Marquis of Lorne* (Salter): reddish carmine, spotted and tipped with yellow; the reverse nankeen-yellow; a large bold semi-globular flower. *Mary Major* (Salter): a very beautiful large white globular flower. *Rea rubrorum* (Salter): deep red shaded with crimson, the reverse pale nankeen-yellow; the finest of its colour yet obtained, being large, well-formed, and semi-globular flowers; 1st-class Certificate R.H.S., Nov., 1881.—All sent out by Veitch & Sons.

Of POMPONS the following are early flowering:—*Anastasio* (Salter): pink, shaded magenta, fragrant; a pretty sub-globose flower. *Inimitabile* (Salter): bright amber-yellow; fine and distinct. *Virginia* (Salter): pure white; a well-formed flower, the best of the early-flowering whites. The following is a late flowering variety:—*Brunette* (Salter): amber-yellow, shaded with reddish brown; a compact well-formed flower.—All sent out by Veitch & Sons.

CYCLAMENS (PERSICUM).—*Emily Little*: very large flowers, white with deep purple mouth, the flowers remarkable for substance and smoothness; 1st-class Certificate R.B.S., March, 1882. *Striata*: flowers rosy lilac with paler edges, a very distinctly striate and novel form; 1st-class Certificate R.B.S., March, 1882.—Both from H. Little.

DAHLIAS.—Of Show varieties Mr. Turner will send out *Cardinal* scarlet, *Celestial* French white, *Comet* deep red, *Critic* lilac, *Crown Prince* buff, *Duchess of Wellington* white with crimson tips, *Major Cornwallis West* scarlet with orange shade, *Pioneer* rich glossy black, the darkest yet known.—All raised by Rev. C. Fellowes. Messrs. Keynes & Co. will send out *Duke of Albany* crimson, *Georgina* creamy white, *George Dickson* chestnut brown, *James Stephen* orange-scarlet, *Joseph B. Service* yellow, *Lizzie Leicester* pink pencilled, *Maggie Coul* white edged with purple, *Miss M. Batchelor* bright scarlet, *William Davis* light purple. Messrs. Rawlings offer *George Rawlings* dark maroon.

Of Fancy sorts we have two from Messrs. Keynes & Co., namely, *John Forbes* fawn striped with maroon, and *Polly Sandell* lemon tipped with white.

Of Single varieties we find in Mr. Cannell's list *gracilis superba*, *gracilis fulgens*, *gracilis ignea*, and *gracilis euprea*, all shades of crimson scarlet or glowing red; *gracilis lutea* yellow—these all being forms of the elegant *D. gracilis* figured in our present number; *Dido* magenta rose, *Guido* light rose, *Halo* magenta crimson, *Hero* prune-purple, *June* yellow tipped with white, *Tyro* lilac with yellow zone at base, *Buffalo* fawn flushed with orange, *Cato* orange-scarlet, the two last forms of *D. coccinea*; *Avalanche* white, *Comet* reddish-scarlet, *Zulu* maroon shaded crimson, *New Paragon* magenta, and *Cambridge Yellow*, said to be the best of all the yellows.

GLADIOLUS.—Of this fine genus M. Lemoine has raised some new hardy hybrids from G. Lemoinei and Marie Lemoine crossed with G. purpureo-auratus, and the finer varieties of G. gandavensis; they are hardy like their parents, and of better habit, the flowers have a more perfect form and are distinguished by bolder spotting or richer colouring:—

Cavaignac: beautiful rosy-salmon flower; lower divisions widely spotted maroon surrounded by sulphur-colour. *John Thorpe*: a superb plant attaining 4 ft. in height, beautiful bright gooseberry colour, spots fiery broadly edged with sulphur, all the divisions streaked with yellow at the centre. *L'abbé Grégoire*: violet-rose, spots of a black-violet surrounded with deep yellow. *Lafayette*: fl. very large, yellowish salmon, with very large crimson spots on the lower divisions. *Rocheambau*: large salmon fl., lower divisions deep salmon spotted with purple.

HYACINTHS.—The whole of these, except when otherwise noted, are from the collection of Messrs. Veitch & Sons:—*Challenger*, S.R.: bright claret with a dark red stripe along each segment; close, well formed, and excellent spike; distinct and fine; 1st-class Certificate R.H.S., March; R.B.S., March, 1882. *Charles Dickens*, D.B.: a double-flowered sport of this fine old single variety, and possessing all its good qualities; flowers porcelain blue; 1st-class Certificate R.B.S., March, 1882. *Clarinda*, S.R.: a single form of the double Duke of Albany, very bright and effective; good close spike. *Crinoline*, S.R.: fleshy pink with slight rosy pink stripes; large bells and good spike. *Delicata*, S.R.: the segments creamy blush with a bar of pale brown along each; very broad segments; distinct in character, and a fine spike; 1st-class Certificate R.H.S., March; R.B.S., March, 1882. *Diadem*, S.R.: salmon-red, distinct in colour but small in the spike. *Duke of Albany*, D.R.: a semidouble lively pinkish red of a pale bright shade with stripe of rosy red; distinct, and forms a close spike; 1st-class Certificate R.B.S., March, 1882. *Enchantress*, S.B.: a beautiful pale greyish blue, whiter towards the centre; exquisitely delicate, distinct and very pretty; good spike and bells; 1st-class Certificate R.H.S., March, 1882. *General Van der Heyden*, S.B.: pale blue with azure blue stripes along the segments; large close spike.—Osborn & Sons. *Leo*, D.R.: a fine and distinct variety, the bells large and double, creamy-white with a faint streak of pale pink along each segment; 1st-class Certificate R.H.S., March, 1882. *Magnificent*, D.B.: a large pale blue variety, very fine bells; spike somewhat irregular; very promising. *Marqueterite*, S.W.: a large-belled variety, pure in colour, handsome in appearance, and producing a fine spike. *Mr. Stanley*, S.R.: deep bright red, possessing a greater depth of colour than King of the Reds; fine close spike, extra fine. *Orange Boven*, S.Y.: pale yellow, the segments striped with bright reddish pink; distinct and very good, but requires to be more compact in the spike. *Progress*, S.B.: rich deep shaded violet; large full spike; a finely-shaded flower of great beauty. *Purity*, S.W.: a fine white variety in the way of *Mont Blanc*, but with larger and stouter bells, fine spike.—*Safrano*, S.Y.: pale creamy yellow; good bells and spike. *Sparkler*, S.B.: deep violet blue with white throat; bells small, spike good; very pretty and striking. *Sunrise*, S.R.: a bright red variety in the way of *Tuurbaak*, close spike, very bright. *Surprise*, S.B.: pale violet, with dark stripe, distinct in character, but somewhat dull-looking. *The Sultan*, S.R.: glowing claret-purple; fine bells, but loose spike.—Osborn & Sons.

PELARGONIUMS.—The following new Show varieties are announced by Mr. Turner, all with one exception raised by Mr. Foster:—*Chivalrous* rose maroon spot, *Daphne* deep rose maroon spot, *Denotion* cherry rose, *Florence* crimson, light centre, *Margaret* rosy purple and dark maroon, *Martial* (Bréhaut) rich crimson and maroon, *Monarch* crimson purple black top, *Rayon d'Or* scarlet, *Sunbeam* bright scarlet, *The Abbot* dark with narrow crimson edge.

Mr. Turner's new Fancy varieties are:—*Mrs. Beck* lake, *Mrs. Douglas* rose, *Mrs. Foster* rosy-

purple, *Mrs. Gair* crimson purple, *Queen of the Hellenes* white with rosy spots, *Sims Reeves* maroon with purple edges, lower petals purple.—All raised at Slough.

PENTSTEMONS.—The following novelties are being sent out by M. Lemoine of Nancy:—*Algérie*: fl. very large, erect, edges clear violet, centre white. *Atlantide*: fl. of the largest, bright violet, the large white throat marbled with purple. *Chinois*: plant low bushy, fl. medium-sized, rosy-red, the centre white with strong purple stripes. *Ephéméride*: fl. upright, open, rosy-lilac, white inside; fine habit. *Oracle*: dwarf, fl. horizontal, streaked bright salmon, the outside brilliant rose. *Parlement*: fl. enormous, upright, lively carmine-rose, throat white slightly striped. *Séduction*: fl. large, wine-red, white throat marbled with purple, edges violet. *Télégraphe*: large fl., violet-rose, broad white throat very open. *Virginal*: fl. large, very open, sulphury-white, spikes long; the most beautiful of the white varieties.

PRIMULA ACAULIS, *Croussii flore-pleno*.—Pale purple, distinct and good; 1st-class Certificate R.H.S., March; R.B.S., March, 1882.—Paul & Son.

RHODODENDRONS.—The following new greenhouse hybrids were all from Messrs Veitch & Sons:—*Aurora*: Orange buff with purple stamens, very distinct and fine; 1st-class Certificate, March, 1882. *Favourite*: a fine new greenhouse hybrid variety, the colour clear soft satiny-pink; very distinct and fine; 1st-class Certificate R.H.S., March; R.B.S., March, 1882. *Her Majesty*: blush white with prominent red stamens, very distinct and pretty. *Royal Scarlet*: lively pale orange-scarlet, narrow segments, distinct. *Triumphans*: dull orange buff, very fine. The following has been raised by Messrs. Ireland & Thomson:—*Countess of Dalkeith*: a fine greenhouse evergreen shrub of strong constitution, and good habit, producing abundantly its finely shaped pure white deliciously-scented flowers; 1st-class Certificate R. Caledonian H.S., April, 1882.

ROSE, *Her Majesty*.—One of Mr. Bennett's pedigree varieties; flowers rich pink, a very attractive shade of colour; large and full; 1st-class Certificate R.H.S., March, 1882.—H. Bennett.

TULIP (Early Single).—*Adeline*: a fine shaped variety in the way of Proserpine, but of a clear rose colour.—Osborn & Sons. *Bird of Paradise*: a very fine deep yellow sort, deeper in colour than any other variety; fine for pot culture.—Veitch & Sons.

VERBENA, *Stars and Stripes*.—A handsome and novel variety with the flowers remarkably sweet-scented; the trusses are bold, and the individual pips large and well-formed, of a soft lilac shade of rosy-pink with a distinct white stripe down the centre of each segment; 1st-class Certificate R.H.S., April, 1882.—H. Cannell & Sons.

WEIGELA.—M. Lemoine has the following new varieties:—*De Jussieu*: fl. yellow-centred, lobes straw-colour flushed with rose, outside carmine. *Jean Macé*: fl. large, opening slightly, purple, buds crimson-black-purple; the deepest coloured of the Weigelas and one of the most floriferous. *Voltaire*: fl. large, the tube swollen, purple-red, inside wine-red, with large yellow spot on the lower part of corolla.

NEW BOOKS, &c.

THE ROSE, by H. B. Ellwanger, is a little book which, notwithstanding the many treatises on the Rose we already possess, will be welcomed as a useful contribution to Rose literature. The various chapters are devoted to such matters as Soils, Pruning, Manures, Diseases, Propagation, and Exhibition—matters which are dealt with in a practical manner, while the varieties, the raisers, the seed-parents, and the colours of roses come in for their share of attention, and we propose elsewhere to print one of its most interesting chapters, that on the different types to be

found amongst Roses, chiefly of the H. P. Class. There is a descriptive list of 956 varieties arranged on a new plan, and giving both the raiser's name, and the date when it was produced. It forms a handy little volume of 291 pages, well printed, and handsomely got up. The book is dedicated to the author's father.

FLORULE DU MONT-BLANC, by V. Payot (Genève, 1881). The 2nd part of this little Botanist's guide is devoted to the Ferns of the environs of Mont Blanc, the number of which, including 8 Equisetums, 6 Lycopodiums, and 2 Selaginellas, is set down at 57, distributed amongst 21 genera. The species are not described, but a very full note of their habitats is given, which will make the little brochure extremely useful to tourists in search of alpine ferns.

THE RASPBERRY AND STRAWBERRY, by D. T. Fish (London: L. Upcott Gill). This forms a portion of Mr. Fish's *Hardy Fruit Book*, reprinted from the *Bazaar*. The directions for the cultivation of these two useful fruits are ample and practical, and may be consulted with advantage by those who need instruction in such matters.

THE GARDENERS' CHRONICLE (Mar. 25—April 22) publishes the following novelties:—*Nepenthes hirsuta glabrescens*, Masters (p. 398, fig. 59), a nearly glabrous form, with reddish stems, subamplexicaul leaves, and cylindric pitchers 5 in. long, reddish with conspicuous veins or wholly green, the wings fringed, the mouth ovate with a greenish yellow finely ribbed rim; often called *N. zeylonica*, but believed to be a native of Borneo. *Hydroglossum scandens Fulcheri* (p. 399), figured and described at p. 59. *Adiantum Victoriae*, Moore (p. 428), a very useful decorative fern of dwarf habit, supposed to be a hybrid between *A. Ghiesbreghtii* and *A. decorum*, raised by Mr. Bause; it forms dense tufts of green velvet 4–6 in. high, and twice as much across, the pinnules being large and suggestive of young examples of *A. farleyense*. *Arum palæstinum*, Boissier (p. 428), a fine Syrian Arad, with long flat fleshy tubers, triangular-hastate leaves of a dark glossy green, and obliquely campanulate spathe 7–11 inches long, rich velvety black inside.—Heath & Son, Cheltenham. *Rhododendron pendulum* (p. 429, fig. 65), a small Himalayan species, naturally pendulous from the branches of fir-trees; the leaves oval obtuse ciliate; the flowers white bell-shaped.—J. H. Mangles. *Azalea serpyllifolia*, A. Gray (p. 429), a pretty little evergreen bush, with small obovate apiculate leaves, and terminal tufts of white rotate flowers about half an inch in diameter, with a flat limb of five oblong lobes; it is of Japanese origin.—Veitch & Sons. *Dendrobium nobile nobiliss* (p. 433) is said to have been shown at Ghent in 1877 as *D. Rollissoni* by the Messrs. Rollisson. *Zamia montana*, A. Braun (p. 460), an interesting Cycad recently imported from Antioquia, but described some years ago from New Grenadan specimens; the thick stems are 4–5 ft. high, with a head of pinnate leaves 4–5 ft. long, the pinnæ oblanceolate or linear-lanceolate abruptly acuminate and with usually one prominent and a few obscure teeth.—Shuttleworth, Carder & Co. *Zamia obliqua*, A. Braun (p. 460, fig. 72), an elegant slender-stemmed Cycad, the stems cylindric, 4 ft. high, 1½–2½ inches in diameter, terminated by a spreading crown of pinnate leaves 1½–3 ft. long, the leaflets elliptic lanceolate 6–9 inches long, 2–4 inches broad, caudate acuminate with speciosly denticulate margins; from New Grenada.—Veitch & Sons, W. Bull, and L. Van Houtte. *Antherium graptophyllum* (p. 460), from Socotra, a herbaceous perennial with lanceolate leaves and large racemes of small white flowers. *Dendrobium Lubbersianum* (p. 460), a Burmah plant in growth like a small *D. formosum*, the flowers yellowish white, much like those of *D. cariniferum*. *Epidendrum Cooperianum caloglossum* (p. 460), a very fine variety, the exquisite colour of the purple lip so

bright as to entitle it to be regarded as not much inferior to *E. Frederici Guilielmi*; a glorious thing, bought by Sir T. Lawrence, Bt., at Mr. Day's sale; the present specimen comes from Dr. Wallace. *Lælia Lecana*, Rehb. f. (p. 492), a fine tropical Orchid, which Prof. Reichenbach suspects may be a hybrid; it has short tumid furrowed monophyllous pseudobulbs, euneate-oblong obtuse very leathery leaves, and spatheless flowers of which the sepals and petals are rose-coloured, while the lip is white, with the tips of the side laciniae purple; flowered by W. Lee, Esq. *Odontoglossum Sanderianum*, Rehb. f. (p. 492), a fine Orchid allied to *O. nevadense*; it has light ochre-coloured sepals and petals with brown marks and stripes, and a large nearly pandurate lip not quite white, but having the most delicate hue of sulphur, and marked with a large purple-crimson blotch between the callus, and a few spots of the same colour in front; the flowers are finely hawthorn scented; flowered by Mr. Gaskell, Wootton Wood, Liverpool. *Leea amabilis* (p. 492, fig. 77), a beautiful variegated stove plant, noticed at p. 75. *Polystichum acrostichoides grandiceps* (p. 492), a tasselled variety of the N. American *P. acrostichoides*, and a desirable evergreen plant for the hardy fernery.—W. & S. Birkenhead. *Ocotelea sochlearis* (p. 492). *Catasetum pileatum* (p. 492), a Venezuelan species with rather large flowers with light reddish sepals, white petals, and a broad white lip. *Azalea Oldhami* otherwise *Rhododendron Oldhami* (p. 524), a dwarf evergreen greenhouse shrub, with slender branches, lanceolate or oblong-lanceolate leaves, and trusses of funnel-shaped reddish salmon-coloured flowers about 2 inches across; introduced from Formosa.—Veitch & Sons. *Thriaspium Sillemianum* (p. 524), a Burmah Orchid with the habit of *Vanda teres*, and bearing white flowers, the lip striped with parallel purple lines. *Nepenthes Dormanniana*, Hort. Williams (p. 525, fig. 81), a fine hybrid pitcher plant, believed to be of American origin, with broadly lance-shaped leaves, ciliate at the edge, and flask-shaped pitchers 6 in. in length by 3 in. in breadth, with deep fringed wings and a broad finely ribbed rim; they are green heavily spotted with dull crimson.—B. S. Williams. *Masdevallia Estradæ delicata* (p. 525), a paler variety. *Odontoglossum sceptrum* (p. 525), a fine plant allied to *O. luteo-purpureum*. The flowers are of the clearest dark lemon yellow marked with rich blackish purple spots, the anterior part of the lip nearly circular much toothed and very wavy at the base, and the bristle-like calli very downy arranged almost in a circle; flowered by R. P. Percival, Esq. *Odontoglossum luteo-purpureum amplissimum* (p. 525), a variety with very conspicuous flowers, the sepals and petals very broad, of a clear light yellow, with a few cinnamon spots and streaks at the base, and a few very large cinnamon blotches on the disc of the lip.—W. E. Brymer, Esq. *Odontoglossum Leeanum* (p. 525), a supposed hybrid ranking near *O. deltoglossum*; the flowers are yellow spotted with brown; see p. 76.

The GARDEN (Mar. 25—Apr. 22) publishes coloured plates of the following subjects:—*Nerine pulchella*, *Plantii*, *pubica*, *pumilis*, *filifolia*, and *corusca* [pl. 329], a pretty group of very elegant greenhouse bulbous plants, of which *N. pulchella* with large rosy-pink flowers, and *N. corusca* with large crimson-scarlet flowers are the most attractive; they are closely allied to the Guernsey lily; *Odontoglossum excellens* and *Pescatorei* [pl. 330], the former a fine yellow-flowered plant, with the lance-shaped sepals spotted with large irregular blotches of chocolate brown, the ovate petals undulated and not spotted, and the lip broad refuse and wavy with chocolate spots, a yellow disk, and bifurcate orange-coloured crest; *Lilium Leichtlinii* [pl. 331], one of the most beautiful of the yellow lilies with

spotted recurved flowers, and according to Mr. G. F. Wilson one of the four best Lilies in cultivation. *Vanda cærulea* [pl. 332], the Barford Lodge variety, remarkable for its short thick leaves, and very broad lateral sepals; flowered at Ashgrove, Pontypool. *Bignonia venusta*, otherwise *Pyrostegia ignea* [pl. 333], a grand old stove evergreen climber, with the lower leaves ternate, the upper conjugate and tendrilled, great corymbose racemes of long-tubed orange-scarlet flowers, profusely produced during the autumn months.

The ORCHID ALBUM (Parts IX.—X.) contains figures of the following Orchids:—*Cattleya superba splendens*, Lemaire [t. 33], a superb variety with highly-coloured flowers, the lip of a deep magenta; from the Rio Negro; W. Lee, Esq. *Paphinia cristata*, Lindley [t. 34], flowered at the Victoria Nursery, the flowers beautifully marked with transverse purple lines. *Odontoglossum Andersonianum*, Rehb. f. [t. 35], one of the best forms of this beautiful ally of *A. Alexandræ*, from a plant flowered by Messrs. W. Thomson & Son, of Clovenfords. *Cypripedium politum*, Rehb. f. [t. 36], a neat and showy Lady's Slipper, raised by R. Warner, Esq., between *C. barbatum superbum* and *C. venustum*, as is supposed; the flowers heavily stained with wine red. *Cypripedium chloroneurum*, Rehb. f. [t. 37], another of Mr. Warner's hybrids, remarkable for its broad petals and green conspicuously veined dorsal sepal. *Dendrobium bigibbum*, Lindley [t. 38], a very finely-coloured form of this showy North Australian Orchid, from the collection of the Marquis of Lothian, at Newbattle Abbey. *Phalaenopsis Stuartiana nobilis*, Rehb. f. [t. 39], a beautiful Orchid from the Eastern Archipelago, resembling *P. Stuartiana*, but having larger flowers, marked with fewer and larger spots on the yellow portions of the sepals and lip. *Odontoglossum Kramerii*, Rehb. f. [t. 40], a lovely little epiphyte from Costa Rica, once plentiful but now rare in gardens; it is dwarf-growing, with comparatively large rosy blue flowers, the broad roundish lip of which is marked by concentric bands of yellow and blue. There are some judicious remarks on Shading Orchids (see p. 70), and notes on rare species or varieties flowered in various collections.

The BOTANICAL MAGAZINE for April contains *Anthurium Andréanum*, Lind. [t. 6616], one of the grandest plants recently introduced, now becoming known amongst the growers of stove plants. *Androsace rotundifolia macrocalyx*, Hooker, f. [t. 6617], a Himalayan Primrose-wort, with roundish-cordate radical leaves, the umbels of pretty rosy flowers surrounded by leafy bracts, and with the calyx also enlarged and foliaceous. *Amorpha canescens*, Nutt. [t. 6618], a small erect shrub, the "lead plant" of North America, which has pinnate leaves and long spikes of small purple flowers. *Peperomia resedaeflora*, André [t. 6619], a singular and pretty stove herb, with erect branching stems, orbicular cordate 7—9 nerved leaves, and conical terminal racemes of white clavellate amenta; introduced from Bogota—Cambridge Botanic Garden. *Aloe abyssinica Peacockii*, Baker [t. 6620], a fine yellow-flowered Aloe, more fully described ante p. 74. *Bauhinia corymbosa*, Roxb. [t. 6621], a magnificent shrubby stove climber, requiring ample space for its development; the leaves are bipartite with dimidiate-oblong segments, and the flowers rosy-pink with bright red filaments, profusely produced in terminal corymbs.

ICONOGRAPHY OF INDIAN AZALEAS (No. 7) contains figures of the following varieties:—19. *Bernhard Andreas alba*, a good double white, said to be useful for forcing; 20. *Apollo*, one of the most resplendent of vermilion reds, and finely shaped; 21. *Impératrice des Indes*, a very large salmon-rose with white margins and carmine spotting, and a central tuft of petaloid bodies of the same colour.

GARDEN GOSSIP.

THE HORTICULTURAL EXHIBITIONS at the CRYSTAL PALACE, are this year five in number. On May 20th there is the Summer Exhibition of Plants and Flowers; on July 1st, a Grand Exhibition of Roses; on September 8th and 9th, the Exhibition of Fruit; on the same date the Grand National Dahlia Show; and September 20 and 21, the International Potato Show. The Schedules are issued, and can be had on application to Mr. W. G. Head, the Garden Superintendent.

— THE FLOWER SHOWS at the ALEXANDRA PALACE announced for the ensuing season are as follows:—June 20th, Decorative Exhibition, Pelargonium Show; July 8th, Grand Rose Show; August 5th, National Gooseberry Show; August 12th, Grand Decorative Exhibition and Show of Gladioli; October 7th, National Gourd Show; November 4th, Exhibition of Hardy Fruit; December 23rd, Exhibition of Hardy Trees. Schedules can be obtained on application to Mr. J. Forsyth Johnson, the Director of Horticultural Exhibitions.

— A FINE specimen of MARECHAL NIEL Rose is now flowering with Mr. H. K. Williamson, in the New Gardens, at Whitby, as we learn from the *Times*, and is attracting the attention of florists and horticulturists, as well as that of the general public. The Rose was planted 18 years since, and now extends horizontally 102 ft., namely, 48 ft. to the left, and 54 ft. to the right of the parent stem, the average depth being some 5 ft. or 6 ft. Last year 2,500 roses were plucked from its branches, but this number will be much exceeded this season. The flowers are now in their early bloom, and 3,500 blossoms have been counted.

— IN cultivating DAHLIAS, it is not necessary to provide them with fresh quarters every year, and as it is not until the second or third year that the soil can really be worked into first-class condition they should be kept to the same quarters for some time. Dahlias are such gross feeders that the preparation of the soil for them is no light matter. It cannot well be too deep or too rich. It ought certainly to be stirred to a depth of two feet, and have a six-inch layer of manure added to it. Good fat manure from the farm or stable yard or from an old hotbed is unquestionably the most suitable, but green or fresh manure from the cow byre or stable will answer. There is no occasion to sweeten this manure, however rank, by throwing it in heaps and turning over, as in the preparation of manure for hotbeds, as the soil will sweeten it sufficiently before the roots of the dahlias come in contact with it. If the supply of manure is not sufficient for so heavy a dressing as is here advised, the quantity available should be supplemented with Clay's Fertiliser, which is the best of all the artificials for dahlias, and may be employed with excellent effect at the rate of two cwt. to a rood, with a light dressing of stable manure, and at the rate of three cwt. without manure. The fertilisers should be spread evenly over the surface, and if the ground has been trenched over since it was last cropped it will suffice to dig the soil over one spit in depth. But if it has not been so prepared a different course must be taken. A rather wide trench must be opened out at starting, and maintained throughout, and as the top spit is turned over the soil in the bottom of the trench should be forked over, and have a proportion of the manure mixed with it to

encourage the roots to strike down, and be as far as is desirable beyond the influence of a short period of drought. Some persons advise the whole of the manure to be put into the bottom of the trench, but experience, extended over many years, has shown the practice to have little to recommend it, if it is not decidedly objectionable. It will not be necessary to dress beds in the flower garden in which dahlias are to be planted so liberally as advised above, but the soil must be enriched sufficiently to sustain a vigorous growth. The cultivation of dahlias for exhibition purposes on thin and naturally poor soils will be found very uphill work, and in most cases it will prove very disappointing. Thin or shallow soils may be materially improved by the addition of strong loam, and if loam can be obtained at a reasonable rate a moderate dressing will afford an ample return. — (*Gard. Mag.*, 1882, 176).

— A PRESENTATION has recently been made to Mr. Crump, gardener for some years to the Duke of Marlborough, at Blenheim. It consisted of a silver-plated tea service, and was given by the employés at Blenheim as a token of their esteem, and also of their regret at his leaving, the occasion of which is his having entered into business on his own account at Leamington.

— PRESENTATION TO MR. JOHN LEE. The officer-bearers of the Royal Gardeners' Benevolent Institution have recently presented to Mr. John Lee, of Hammersmith, a service of plate, of the value of fifty guineas, in order to mark their sense of the valuable services he has rendered to the Institution during the long period of forty-one years, as a Trustee of its funded property, and for nearly the whole of the time as Chairman of the Committee of Management.

— A PRESENTATION has also been made to Mr. WILLIAM MUIR, who for nearly seventeen years was head gardener to the late Sir Philip de Malpas Grey Egerton, Oulton Park, Cheshire, on his receiving the more important appointment of head gardener to the Earl of Hopetoun, Hopetoun House, near Edinburgh. The "keepsake" consisted of a purse containing fifty sovereigns, with a handsome black marble timepiece, upon which was a gold plate bearing the following inscription:—"Presented, together with a purse of money, to Mr. William Muir, by friends, as a mark of respect and esteem, on his leaving Oulton Park, March, 1882."

In Memoriam.

— THE REV. JOHN GUDGEON NELSON died suddenly at Aldborough on April 14th. He had been for the last twenty-two years rector of Aldborough, and had inherited a passionate love for plants from his father—who was also a great gardener, and the raiser, amongst other things, of the pretty *Phlox Nelsoni*. We are indebted to him for some seedling *Phloxes* of a very charming character, raised from seeds of *P. subulata* and *P. Nelsoni*, drawings of which were published in the *Garden* in the early part of last year, the varieties figured including forms with bright rose, white, rosy-azure, pink, and mauve-pink flowers. To Mr. Nelson we are also indebted for the *Lachenalia Nelsoni*, one of the most charming of greenhouse bulbs.



THE DRYDEN NECTARINE.

[PLATE 563.]

IN my note-book I find the following entry :
 “Dryden, a very large and delicious
 Nectarine, ripe August 16, 1871 ; raised
 from a stone of the Dagmar Peach.”

As I never form a decided opinion from the first fruit of a seedling, I did not at once jump to the conclusion that “Dryden” was going to turn out equal to the “John Dryden,” but the name was given to be withdrawn if not found worthy. I have, however, seen no reason to alter my opinion ; successive entries have but confirmed the first. When well grown the DRYDEN Nectarine is a very fine and well-flavoured fruit, much larger than the ordinary race of Nectarines, of which the Elruge is a type, possessing a distinct and remarkable flavour, derived from the mixture of the Stanwick Nectarine with the various sorts which the orchard-house gives the means of cultivating.—T. FRANCIS RIVERS, *Sawbridgeworth*.

WHITE TOKAY GRAPE.

WHILE agreeing with Mr. Fleming that this is one of our best late White Grapes, I cannot endorse his opinion as to the cause which has led to its growth being discontinued ; neither do I think the unkind cut which he has given to my old friends the Black Grapes can ever reinstate the Tokay in the favour of the present generation of growers, since they have to produce, preserve, and bring forward a plentiful supply of really good “bags of water,” from the time old Hamburgs give out, until new ones come in. Rather must we look for the cause of the falling-off in our affection, to the altered state of affairs brought about by cheap glass, simplified forms of heating, and last, but not least, to the preference which consumers give to plump, pulpy fruit, at a guinea or more per pound, as a sort of set-off to the “dry and brown” raisin-like fruit which they can always buy at the Italian warehouse.

Within the last few years Grape-growing has made rapid strides, and where formerly mediocre Grapes were grown by the hundred-weight, good ones are now produced by the ton. Every good sort has a house to itself ; and if those of the intense heat-loving section are not

grown separately, they are kept side by side, where their good or weak points are found out by contrast. In this way Tokays were planted by the side of Muscats, and after giving sufficient fire heat to finish off the latter—still one of our very best winter Grapes, the former were found wanting in colour and the faint smack of Muscat flavour ; and as few people cared to sacrifice a house of winter Pines, Tokay vines have been considerably reduced to make room for kinds which can be cultivated at less cost.

To grow the Tokay Grape well, the vines should always have a warm corner to themselves ; and the borders should be inside the house and well drained, to admit of liberal feeding with diluted liquid through the growing season ; but the compost, consisting of good turfy loam, charred wood or prunings, and bone dust, should never have solid manure in it, as it induces a gross growth at the outset, and encourages worms, which very soon render the whole mass pasty and fibreless, and the internal border is condemned as a failure. A good late white Grape which can be grown and finished in moderate heat will be found in Mrs. Pearson, and although it is smaller in the berry, it is excellent in quality, and producing as it does long taper bunches, through which the air can pass freely, it is well adapted for hanging after it is ripe. It is a good grower, shows an abundance of bunches, which set well under Hamburgh treatment, and judging from my slight acquaintance with it I am inclined to think it will prove a valuable variety for use through the early spring months.—W. COLEMAN, *Eastnor Castle Gardens*.

MEDINILLA MAGNIFICA.

THIS splendid stove shrub, though perhaps one of the most gorgeous amongst flowering exotic plants, is but seldom met with in ordinary collections. It is probable that the space necessary to grow a good specimen may be a consideration, and a reasonable objection with many growers.

Some years ago I remember sending you an account of a large plant we then had, which bore a multitude of its drooping clusters of blossoms ; that plant grew in a tub placed at the end of one of our pine stoves. The plant

of which I am now giving a description is a chip off the old block, and is planted out in a brick box at the opposite end of the same pine stove; it is about 6 feet through and 6 feet high, and has upon it upwards of 175 of its rosy clusters of flowers, hanging not only from the extremity of the shoots, but throughout the old plant; and it is curious to note how the bloom buds will come out from any part of a dry stem without the accompaniment of leafage.

The plant flourishes in the usual stove-plant mixture, viz., loam, peat, and sand, and with plenty of drainage, luxuriates in a liberal supply at times of manurial water. Any one having a little space to spare in the plant-stove would do well to plant one of these, and I feel sure that as it grew and flourished he would feel inclined to give it all the elbow room it would require, and feel quite surprised he had not sooner made the acquaintance of such a floral beauty.

New and rare plants come and go—out of them nurserymen make their living and a great deal more—but many of them are either lost, forgotten; or thrown to the limbo of oblivion. The *Medinilla magnifica*, however, like our *Camellias*, *Gardenias*, *Stephanotis*, *Azaleas*, &c., will always command a place when some attention and consideration is given to the massing of such specimens of floral beauty and loveliness.

I should perhaps add that this is one of the plants which can keep itself tolerably free from all lively insect pests, which is one “consideration” at least out of the many he has to consider, under which a gardener may feel at ease.—WM. MILLER, *Combe Abbey Gardens*.

ALPINE AURICULAS.

I HAVE not seen or heard of any Alpine Auriculas going off in the way that they have done with Mr. Fish (see p. 57). I do not think the plants remaining on the same place for a period of four years would be the reason. We have a plant at Loxford which has not been touched for seventeen years; it has now formed a clump nearly two feet across, and is now (May 2) in full flower, and as healthy as ever it was. The more delicate exhibition strains, planted out five or six years ago, are also in good condition, and

have not been removed during that time. I have also had some remarkably fine out-of-doors specimens sent from Aberdeen, and also from Kent, but have not heard a word about the plants going wrong. I fancy it must be some local cause in Mr. Fish's case.—J. DOUGLAS, *Loxford Hall, Ilford*.

NATIONAL AURICULA SOCIETY.

SOUTHERN SECTION.

THE Show, which was held at South Kensington on April 25th, exceeded all expectations, which may be taken as an augury that the taste for these flowers which was stirred up in the south some few years ago by Mr. Dodwell, is at least not declining. The chief difficulty to be overcome as regards the appearance of these flowers in public is that of fixing beforehand a day which may fully and equally suit even the southern growers themselves. The show was certainly the most extensive seen in modern times, and was probably the largest ever brought together; and despite the autumn-blooming tendencies of the last season, the flowers were generally well up in quality, and the effect of the display as a whole was charming. The northern growers on this occasion had quite the best of it, as many of the southern flowers were past, though Mr. Turner, Mr. Douglas, and others made a good fight. We are glad to see Mr. Cannell entering the lists, for he is a grower who throws his whole energy into any matter which he undertakes, and even Mr. Turner must by-and-by look to his laurels.

The following is a list of the awards and of the principal varieties staged:—

AURICULAS.

Class A. 12 dissimilar.—1st, the Rev. F. D. Horner, Kirkby Malzeard, with *Excelsior* (Horner), green-edged; *Agamemnon* (Horner), a grand new green-edged; *Prince of Greens* (Trail), *Erebus* (Horner), purple self; *Moonlight* (Horner), grey-edged; *Frank Simonite* (Simonite), white-edged; *Mrs. Douglas* (Simonite), violet self; *John Simonite* (Walker), white-edged; *Heroine* (Horner), plum-coloured self; *George Lightbody* (Headly), grey-edged; *Ajax* (Horner), and *Luna* (Horner), both grey-edges; an exceedingly fine and well-grown lot. 2nd, Mr. E. Pohlman, Halifax, with *Garibaldi* (Pohlman), dark self; *Beauty* (Trail), grey-edged; *Sophia Dumaresque* (Lightbody), white-edged; *Blackbird* (Spalding), self; *George Lightbody* (Headly), *Confidence* (Campbell), *Laura* (Pohlman), green-edged; *Alexander Meiklejohn* (Kay), grey-edged; *Prince of Greens* (Trail), *Brunette* (Pohlman), a fine black self; *Colonel Taylor* (Leigh), green-edged; and *Acme* (Read), white-edged; plants of medium growth, with highly finished flowers.

3rd, Mr. T. Woodhead, Shibden Head, Halifax, with Acme (Read), Helen Lancaster (Pohlman), self; Colonel Taylor (Leigh), Imperator (Litton), green-edged; Mrs. Dodwell (Woodhead), a white-edged seedling; George Rudd (Woodhead), a grey-edged seedling; Prince of Greens (Trail), Neat and Clear (Woodhead), a dark self seedling; Charles Turner (Woodhead), a seedling grey-edge; Shibden Beauty (Woodhead), a seedling self; and John Simonite (Walker). 4th, Mr. J. Douglas, gr. to F. Whitbourn, Esq., Loxford Hall, with Freedom (Booth), green-edged; Mrs. Moore (Douglas), grey-edged; Pizarro (Campbell), self; Blackbird (Spalding), Ne Plus Ultra (Smith), white-edged; Charles J. Perry (Turner), purple self; Lancashire Hero (Lancashire), green-edged; Smiling Beauty (Heap), white-edged; Prince of Greens (Trail), Geo. Lightbody (Headly), Talisman (Simonite), green-edged, and Acme (Read). J. T. D. Llewelyn, Esq., Penlegare, Swansea, and Messrs. Cannell & Sons, Swanley, also competed.

Class B. 6 dissimilar.—1st, the Rev. F. D. Horner, with John Daltry (Horner), a seedling green-edged; Heroine (Horner), Prince of Greens (Trail), John Simonite (Walker), Miranda (Horner), white-edged; and Geo. Lightbody (Headly). 2nd, Mr. T. Woodhead, with Prince of Greens (Trail), C. J. Perry (Turner), Lancashire Hero (Lancashire), Geo. Lightbody (Headly), Acme (Read), and Col. Taylor (Leigh). 3rd, Mr. J. Douglas, with Dr. Kidd (Douglas), white-edged; C. J. Perry (Turner), Smiling Beauty (Heap), Geo. Lightbody (Headly), Lancashire Hero (Lancashire), and a green-edged seedling. 4th, Mr. E. Pohlman, with New Green (Headly), Lancashire Hero (Lancashire), Col. Taylor (Leigh), Confidencee (Campbell), Acme (Read), and a seedling self. 5th, Messrs. Cannell & Sons, with Beauty (Trail), Col. Champneys (Turner), grey-edged; John Waterston (Cunningham), grey-edged; Vulean (Sims), dark self; Lancashire Hero (Lancashire), and True Briton (Hepworth), white-edged. 6th, J. T. D. Llewelyn, Esq., with Alderman Wisbey, green-edged; Imperator (Litton), Corona (Llewelyn), a seedling purple self; Unique (McLean), grey-edged; Talisman (Simonite), and Metropolitan (Spalding). This was a very strongly contested class.

Class C. 4 dissimilar.—1st, R. K. Penson, Esq., Dinham, Ludlow, with Eliza (Sims), self; Frank Simonite (Simonite), Lancashire Hero (Lancashire), and Geo. Lightbody (Headly). 2nd, Rev. E. L. Fellowes, Wimpole Rectory, Royston, with Dr. Horner (Read), grey-edged; Lord Clyde (Lightbody), self; Lancashire Hero (Lancashire), and True Briton (Hepworth). 3rd, Mr. R. Gorton, Gildabrook, Eccles, with Pizarro (Campbell), Lovely Ann (Oliver), Frank Simonite (Simonite), and True Briton (Hepworth). 4th, Mr. J. M. Robins, Tyrwhitt Road, Lewisham, with Maria (Chapman), grey-edged; Admiral Napier (Campbell), Duke of Argyll (Campbell), self; and Geo. Lightbody (Headly). 5th, Mr. T. Fife, Southern Hill, Reading, with Smiling Beauty (Heap), Mrs. Fife (Fife), a dark self; C. E. Brown (Headly), and Anna (Trail), green-edged. 6th, Mr. W. Brockbank, Brockhurst, Didsbury, with Alma (Lightbody), grey-edged; Metropolitan (Spalding), Lovely Ann (Oliver), and Reliancee (Mellor), white-edged.

Class D. 2 dissimilar.—1st, R. K. Penson, Esq., with Lancashire Hero (Lancashire), and Geo. Lightbody (Headly). 2nd, Mr. W. Bolton, Warrington, with Geo. Lightbody and Ringdove (Horner). 3rd, Mr. W. Brockbank, with Garibaldi (Pohlman) and Frank Simonite (Simonite). 4th, Rev. E. L. Fellowes, with Lancashire Hero and Ne Plus Ultra (Smith). 5th, Rev. H. H. D'Ombraim, with Lancashire Hero and an unnamed grey-edged. 6th, Mr. Samuel Barlow, Stakehill, Castleton, with a Seedling self and Queen Victoria, grey-edged.

Class E. Specimen Green-edged.—1st, Rev. F. D.

Horner, with Prince of Greens (Trail), and 2nd with Colonel Taylor (Leigh). 3rd and 4th, Mr. Woodhead, with Colonel Taylor and Imperator (Litton). 5th, Mr. Brockbank, with Prince of Greens. 6th, Rev. F. D. Horner, with Talisman (Simonite). 7th, Mr. Douglas, with Colonel Taylor, and 8th, with Hope (Douglas).

Class F. Specimen Grey-edged.—1st, 2nd, and 3rd, R. K. Penson, Esq., with George Lightbody (Headly). 4th and 6th, Mr. Pohlman, with George Lightbody. 5th, R. K. Penson, Esq., with C. E. Brown; and 7th and 8th, Rev. F. D. Horner, with George Lightbody.

Class G. Specimen White-edged.—1st, Mr. Woodhead, with Acme (Read). 2nd, Mr. Douglas, with Silvia (Douglas), 5th, with Trail's Beauty, and 6th, with a Seedling. 3rd, Mr. Pohlman, with Acme, and 4th, with Trail's Beauty. 7th, Rev. F. D. Horner, with Blue Bell. 8th, R. K. Penson, Esq., with Smiling Beauty.

Class H. Specimen Selfs.—1st, Rev. F. D. Horner, with Ringdove, 2nd with Blackbird, and 7th with Sapphire (Horner). 3rd, Mr. Douglas, with Topsy (Kay), 4th with Campbell's Pizarro, 5th with Pohlman's Garibaldi, and 8th with a Seedling. 6th, Mr. Bolton, with Lord of Lorne (Campbell).

Class I. 50, not fewer than 20 varieties.—Four collections, the two best in remarkably fine condition, were brought together. 1st, Mr. J. Douglas, who had amongst others Smiling Beauty (Heap), Topsy (Kay), Lancashire Hero (Lancashire), Alexander Meiklejohn (Kay), Dr. Kidd (Douglas), Lord Clyde (Campbell), Dr. Horner (Read), Silvia (Douglas), Acme (Read), Mrs. Fife (Fife), Frank Simonite (Simonite), C. J. Perry (Turner), Pizarro (Campbell), Mazzini (Pohlman), John Waterston (Cunningham), Metropolitan (Spalding). 2nd, Mr. C. Turner, with a neat evenly grown and admirably arranged collection, including Mazzini (Low), violet self, Imperator (Litton), Memnon (Turner), Vulcan (Sims), Alexander Meiklejohn (Kay), Duke of Cambridge (Dickson), Beauty (Trail), General Neil (Trail), Robert Trail (Lightbody), Mrs. W. B. Brown (Turner), a superb new grey-edge, Topsy (Kay), Col. Champneys (Turner), Clipper (Turner), James Douglas (Turner). 3rd, J. T. D. Llewelyn. 4th, Messrs. Cannell & Sons.

SEEDLINGS.—Numerous Seedlings of good quality were staged, showing that a renewal of varieties is in active course of accomplishment, and several 1st-class Certificates (F.C.C.) were awarded:—*Green-edged*: 1st, Rev. F. D. Horner, with Agamemnon (F.C.C.); 2nd, Mr. J. Douglas, with Jumbo (F.C.C.). *Grey-edged*: 1st, Mr. J. Douglas, with Mrs. Moore (F.C.C.); 2nd, Rev. F. D. Horner, with Blue Bell; equal 2nd, Mr. T. Woodhead, with George Rudd (F.C.C.). *Luna* (F.C.C.) was also well shown by the Rev. F. D. Horner. *White-edged*: 1st, Mr. Woodhead, with Mrs. Dodwell (F.C.C.); 2nd, Rev. F. D. Horner, with Godfrey Horner. *Selfs*: 1st, Mr. E. Pohlman, with Brunette (F.C.C.); 2nd, Mr. Douglas, with Duke of Albany (F.C.C.). Mr. Horner also showed Corona (F.C.C.). For descriptions of these new varieties see Register of Novelties, p. 90.

ALPINE AURICULAS.

Class K. 12 dissimilar.—1st, Mr. C. Turner, with Unique, Superb, and King of the Belgians, red shaded flowers; Dr. Denny, black ground, Fred. Copeland, W. Fowle, John Ball, Sensation, Philip Frost, and Imperial, all crimson shaded; Lady Aitchison, plum shaded, all of Mr. Turner's own raising; and Ethel. 2nd, J. T. D. Llewelyn, Esq., with James Fowle, Elcho, Unique, and Sidney, raised by Mr. Turner, and several very fair Seedlings. 3rd, Mr. J. Douglas, with Amelia Hardwidge, a bright red shaded flower; Ada Hardwidge, a pretty magenta shaded, and several other Seed-

lings of his own raising; with Sensation and Dolly Varden (Turner), Mrs. Meiklejohn (Meiklejohn), and Diadem (Gorton).

Class L. 6 dissimilar.—1st, Mr. J. Douglas, with Mrs. Meiklejohn, Diadem, Amelia Hardwidge, and Seedling, all red shaded; George Lightbody (Turner) and Sensation (Turner). 2nd, Mr. C. Turner, with King of the Belgians, Unique, William Fowle, Sensation, John Ball, and Gertrude, the four last being self-coloured. 3rd, Rev. E. L. Fellowes, who had King of the Belgians, very fine, and a rich chestnut self Seedling of good quality. 4th, J. T. D. Llewelyn, Esq., Swansea. 5th, Mr. R. Dean. Mr. Pohlman staged under this head a collection of laced varieties, a new class, very pleasing in character, but needing further improvement and refinement before a high rank can be assigned to it.

Class M. Specimen Gold-centres.—1st, Mr. C. Turner, with Amazon, and 6th with King of the Belgians. 2nd, Mr. J. Douglas, with Princess of Waldeck; 3rd, 4th, and 5th, with Amelia Hardwidge.

Class N. Specimen White or Cream-centres.—1st, Mr. C. Turner, with Charles Darwin, a charming plum shaded flower, and 2nd, with Mentor, dark purple shaded; 3rd and 4th, Mr. Douglas, with Queen Victoria (Turner), mauve-purple shaded; 5th, Mr. Turner, with Gladiator, violet shaded; 6th, Mr. Douglas, with Geo. Lightbody (Turner).

SEEDLINGS.—Of these there was a good assortment, principally shown by Mr. Turner and Mr. J. Douglas. *Gold-centres*: 1st, Mr. Turner, with Amazon (F.C.C.); 2nd, Mr. Douglas, with Princess of Waldeck (F.C.C.). Mr. Douglas also showed in this class Amelia Hardwidge (F.C.C.).—*White-centres*: 1st, Mr. Turner, with Charles Darwin; 2nd, Mr. Douglas, with Ada Hardwidge (F.C.C.). For descriptions see Register of Novelties, p. 90.

FANCY AURICULAS.

Class R. 12 dissimilar.—1st, Mr. Samuel Barlow, with nine pale-hued or yellow show kinds, the double yellow and purple and a show green-edged kind that could hardly be termed a fancy. 2nd, Mr. Douglas, with buff and greenish ground flowers, which were decidedly fanciful. 3rd, Mr. R. Dean, with a lot of charmingly laced flowers unnamed.

POLYANTHUSES.

Class O. 6 dissimilar, Gold-laced.—1st, Mr. S. Barlow, with Red Rover, a seedling, very bright and neat; Beauty of England (Maud), Cheshire Favourite (Saunders), Prince Regent (Cox), Sunrise (Barlow), and Exile (Crownshaw). 2nd, Mr. W. Bolton, Warrington, with Earl of Lincoln (Hufton), Exile (Crownshaw), George IV. (Buck), Cheshire Favourite (Saunders), President (Hilton), and a Seedling. 3rd, Mr. J. Douglas, with Rev. F. D. Horner (Jackson), Lancer (Bullock), Exile (Crownshaw), George IV. (Buck), Cheshire Favourite (Saunders), and President.

Class P. 3 dissimilar, Gold-laced.—1st, Mr. S. Barlow, with Cheshire Favourite (Saunders), Firefly (Barlow), and Exile (Crownshaw); 2nd, Mr. Bolton, with two Seedlings and George IV. (Buck); 3rd, Mr. R. Dean.

Class Q. Specimen Gold-laced.—1st, J. T. D. Llewelyn, Esq., with Lancashire Hero (Whittaker); 2nd, Mr. Brockbank, with Cheshire Favourite; 3rd, Mr. Barlow, with Firefly, 4th with Cheshire Favourite, and 5th with Exile; 6th, Mr. R. Dean, with George IV.

The Premier flower selected from the whole show, was a specimen of George Lightbody,

with nine perfect pips, shown by the Rev. F. D. Horner.—T. M.

NORTHERN SECTION.

The Exhibition of the Northern Section of the National Auricula Society, which was held on May 2nd, in the Town Hall, Manchester, proved to be highly successful, and if not so extensive as the Southern Show held during the preceding week, it was at least as full of interest to the growers and admirers of the Auricula. Some sorts were conspicuously fine, as for example George Lightbody, Acme, Richard Headly, Lancashire Hero, and Alexander Meiklejohn, the latter especially being very largely shown and in exceptionally fine character. See note at p. 94. We give below the principal awards in the several Classes:—

AURICULAS.

Class A. 6 dissimilar (Alpines excluded).—1st, Mr. W. Bolton, Warrington, with very fine examples of Prince of Greens, Frank Simonite, George Lightbody, Alexander Meiklejohn, Lancashire Hero, and Mrs. Douglas, the fine new violet self raised by Mr. B. Simonite, Sheffield. 2nd, Mr. Jonathan Booth, Failsworth, with well-finished examples of George Lightbody, Alexander Meiklejohn, Trail's Anna, Lord of Lorne, Dr. Horner, and Colonel Taylor. 3rd, Mr. H. Wilson, Halifax, with Alexander Meiklejohn, George Lightbody, Prince of Greens, John Simonite, Sapphire, and Colonel Taylor. 4th, Mr. S. Barlow, Stakehill, with Lovely Ann, Lancashire Hero, Syke's Complete, Frank Simonite, Erebus, and Ringdove, the two latter fine selfs raised by the Rev. F. D. Horner. 5th, Mr. E. Pohlman, Halifax, 6th, Mr. B. Simonite.

Class B. 4 dissimilar (Alpines excluded).—1st, Mr. H. Wilson, with a good set, comprising Acme (Read), Ringdove, Prince of Greens, and Alexander Meiklejohn. 2nd, Mr. Shaw, Bury, with Dr. Horner, Ellen Lancaster, a conspicuous dark self; Alexander Meiklejohn, and George Lightbody. 3rd, Mr. E. Pohlman, with George Lightbody, Acme, Topsy, and Colonel Taylor. 4th, Mr. W. Bolton, with Lancashire Hero, Acme, George Lightbody, and Topsy. 5th, Mr. J. Booth. 6th, Mr. B. Simonite.

Class C. 2 dissimilar.—1st, Mr. R. Lord, Todmorden, with Colonel Taylor and George Lightbody, in fine condition. 2nd, Mr. J. Beswick, Middleton, with Charles J. Perry and Trail's Anna. 3rd, Mr. W. Bolton, with Alexander Meiklejohn and Ringdove. 4th, Mr. J. Booth, with Ellen Lancaster and Dr. Horner. 5th, Mr. W. Taylor. 6th, the Executors of the late Thomas Mellor.

Class D. 2 dissimilar: Maiden growers.—1st, Mr. Bealey, with Acme and Alexander Meiklejohn. 2nd, Mr. Shipley, with Smiling Beauty and Richard Headly. 3rd, Mr. Prescott, with Mrs. Sturwell and Dr. Horner. 4th, Mrs. G. Shaw, with Trail's Beauty and Meteor Flag.

Class F. Specimen Green-edged.—The premium was taken by Mr. E. Pohlman, with Lancashire Hero, in its green form. 1st, Mr. R. Lord, with Colonel Taylor. 2nd, Mr. W. Bolton, with Talisman. 3rd, Mr. Rogers, with May-flower. 4th, Mr. Pohlman, with Laurel, a lively-looking variety, with a

pale-green edge. 5th, Mr. J. Booth, with George Lightbody. 6th, Mr. Pohlman, with Lancashire Hero. 7th, Mr. B. Simonite, with a Seedling. 8th, Mr. Bolton, with Lovely Ann.

Class G. Specimen Grey-edged.—The premium was awarded to Mr. E. Pohlman, for Alexander Meiklejohn. 1st, Mr. H. Wilson, with Alexander Meiklejohn. 2nd, Mr. H. Wilson, with George Lightbody. 3rd, Mr. Pohlman, with Lancashire Hero. 4th, Mr. B. Simonite, with Samuel Barlow. 5th, Mr. J. Booth, with Dr. Horner. 6th, Mr. W. Brockbank, with Ne Plus Ultra. 7th, Mr. B. Simonite, with Garibaldi. 8th, Mr. E. Pohlman, with Confidence.

Class H. Specimen White-edged.—The premium white-edge was Acme, from Mr. R. Lord. 1st, Mr. J. Booth, with Richard Headly, very pretty indeed as a white. 2nd, Mr. R. Gorton, with John Weston. 3rd, Mr. Wilson, with Acme. 4th, Mr. Pohlman, with Smiling Beauty. 5th, Mr. Wilson, with John Simonite. 6th, Mr. Lord, with Catherine. 7th, Mr. Booth, with Trail's Beauty. 8th, a Seedling.

Class I. Specimen Selfs.—Premium, Mr. B. Simonite, with Mr. Douglas. 1st, Mr. J. Booth, with C. J. Perry. 2nd, Mr. Booth, with Mrs. Sturrock. 3rd, Mr. Bolton, with Ellen Lancaster. 4th, Mr. Pohlman, with Lord of Lorne. 5th, Mr. R. Lord, with Lord Clyde. 6th, Mr. Pohlman, with Mazzini. 7th, Mr. Brockbank, with Metropolitan; and 8th, with Topsy.

ALPINE AURICULAS.

Under this section the northern growers admit only those flowers which have a shaded ground colour, and hence many of Mr. Turner's fine self-coloured varieties, which are admitted at the southern shows, are here excluded.

Class E. 4 dissimilar.—1st, Mr. J. Booth, with George Lightbody, Elcho, Queen Victoria, and Brilliant. 2nd, Mr. W. Adams, with Queen Victoria, Diadem, Mrs. Llewelyn, and Colonel Scott. 3rd, Mr. Prescott, with Neatness, Queen Victoria, and Seedlings. 4th, Mr. Shaw, with Conspicua, John Leech, Diadem, and Spangle. 5th, Mr. R. Gorton, with Diadem, Mr. Meiklejohn, Elcho, and Miss Reid. 6th, Mrs. Geggie.

Class K. Specimen Yellow-centres.—The premier alpine, with yellow centre, was Diadem, from Mr. Booth. 1st, Mr. Shaw, with Diadem. 2nd, Mr. Pohlman, with a Seedling laced variety. 3rd, Mr. Adams, with Colonel Scott. 4th, Mr. Shaw, with Spangle; 5th, with Diadem.

Class L. Specimen White-centres.—Premium, Mr. E. Pohlman, with a Seedling laced variety. 1st, Mr. Gorton, with Elcho. 2nd, Mr. Pohlman, with a laced Seedling. 3rd, Mr. Gorton, with Sunset, a pretty but thin light variety. 4th, Mr. Booth, with Tenniel. 5th, Mr. Gorton, with George Lightbody.

POLYANTHUSES.

In the classes for gold-laced Polyanthuses there was a remarkably good competition, and some highly-refined flowers were shown.

Class M. 3 dissimilar Black-grounds.—Mr. J. Beswick, Middleton, had the best three black-ground varieties, staging Exile, Lancashire Hero, a Seedling of the Cheshire Favourite type, paler in the centre, and with a neat wide lacing. 2nd, Mr. W. Bolton, with Exile, Earl of Lincoln, and Zoe, a pretty seedling of great promise. 3rd, Mr. S. Barlow, with Beauty of England, Exile, and Harbinger, a new and very promising variety. 4th, the executors of Mr. T. Mellor, with Cheshire Favourite, and two Seedlings. 5th, Mr. T. Prescott.

Class N. 3 dissimilar Red-grounds.—Mr. Barlow had the best three red-ground varieties, staging

Model, Firefly, both his own seedlings, and very promising indeed; and the true form of Cox's Regent. 2nd, Mr. J. Beswick, with George IV., Lancer, and a Seedling. 3rd, Mr. W. Bolton, with President, George IV., and a Seedling. 4th, Mr. Prescott.

Class O. Specimen Red-grounds.—The premium flower was George IV.; 1st prize George IV., 2nd Model, 3rd Prince Regent, 4th Red Rover, 5th Firefly, 6th Seedling.

Class P. Specimen Black-grounds.—The premium flower was Earl of Lincoln, in very fine condition; 1st prize Exile, 2nd Lancashire Hero, 3rd Cheshire Favourite, 4th John Bright, 5th Earl of Lincoln, 6th President.

The selection of the premier Auricula from the whole Show was a matter of no small difficulty, and eventually the judges resolved to declare two flowers equal in point of merit, namely, Lancashire Hero, very fine, from Mr. S. Barlow, and Alexander Meiklejohn, also in grand condition, by Mr. H. Wilson.—T. M.

CORONILLA GLAUCA.

THIS is a well-known plant in gardens, and is deserving of being extensively grown, as it flowers from September to May; indeed nearly the whole year through. During the summer months it will do well at the foot of a north wall, merely requiring attention in watering. It grows well in a mixture of peat and loam, and is readily increased by cuttings, which soon form nice dwarf bushy plants very useful for decorating, as they will bear a good deal of rough usage. By striking a few cuttings every season plants of various sizes can be had in flower the whole of the winter, and these will be invaluable for decoration.—M. SAUL, Stourton.

INDIAN CORN FOR GREEN PEAS.

NATIVES of the American continent, where the climate admits of Maize being grown to perfection, speak always in high terms of this crop, for like the oatmeal of Scotland, it enters largely into the American household economy; but it is not the produce of the farm that I have here to deal with, but of the garden plot, and with one variety only, and that decidedly belongs to the garden and not to the farm.

The early dwarf Indian Corn that is referred to here is called "Kean's Forty-day Maize." In cultivating this plant it is

necessary to observe well the time of sowing, and to be watchful when the plant is brairding, for jackdaws will come for miles at an early hour in the morning to get the sprouted maize. I had to shoot one to warn the rest, which it did most effectually, for none came after the dead bird was hung up to view.

When the May bug begins to come forth the earth will be sufficiently warmed by the sun to start the maize. This seed-time has to be kept rigorously, for like any other bedding plant of exotic character, this has to be started in the nick of time. It does not succeed so well when sown in pots and planted out; and yet the variegated-leaved maize of our gardens grows freely after being forwarded in thumb pots and planted out. It is of the easiest culture, requiring deep rich soil, and in case of hot weather setting in water will be needed, and a taste of manure water will be beneficial. It is one of the boldest herbaceous plants we grow, and gives the cottage an ornamental look, besides being serviceable in the kitchen.

Kean's Maize is a dwarf variety, seldom rising more than 3 or 4 feet. The plants need not be planted nearer than 2 by 3 feet; and if the ground be well sheltered they will not require stakes or props. I would strongly advise a trial in sheltered gardens; but the right sort to grow is everything, for the miller's maize is for the field, but the gardener's corn, when cooked green like young peas, is a luxury for the table.—ALEX. FORSYTH, *Salford*.

ROSE TYPES.*

I know the peculiarities which pertain to certain families of Hybrid Remontant and other Roses, would be advantageous to different people in many ways. There are some types, such as La Reine, Jules Margottin, Victor Verdier, and Giant of Battles families, which are quite marked in their characteristics. If all new Roses were classified or described as being of such and such origin, or as belonging to a certain class, it would be of great value. The nurseryman is unwilling, with some exceptions, to undertake the propagation of a kind which

will not root and grow freely. The amateur perhaps, would not knowingly purchase a variety devoid of fragrance, or one which is not a free autumnal bloomer. The florist would require that a variety should be of steadfast colour, one that does not quickly fade; or that it should be useful to force, yielding flowers in abundance, &c. If, therefore, New Roses were described as belonging to the La Reine or Victor Verdier type, &c., we should have some very important knowledge of their qualities, since these Roses have imparted to their progeny certain distinct attributes by which they may readily be distinguished from others. A consideration of the different prominent types found among Hybrid Remontant and other classes of Roses may be studied with interest and profit.

BARONNE PRÉVOST TYPE.—The year 1842 ushered in to rosarians what is now the oldest type of Roses in the class, viz., *Baronne Prévost*. It is not a numerous family, and is also of less importance to us than many of the others, but we can well imagine what pleasure it gave in years gone by to the rosarians of the day. This type makes long stout shoots fortified with red thorns of unequal length, but generally short; foliage rather oval, somewhat crimped; flowers large or very large, of flat shape, very full, fragrant, of some shade of rose. It is the most hardy type we have. The varieties commonly grown are: *Boieldieu*, *Colonel de Rougemont*, *Mad. Boll*, *Oderic Vital*. They are all free bloomers in autumn.

LA REINE TYPE.—In 1844, Laffay introduced what he loyally named *Rose of the Queen* (*Rose de la Reine*). This variety bore royal sway for many years; it not only still sells well, and is to be considered a useful rose, but it should also have our esteem as being the parent of a most useful family. The wood is light green, furnished with occasional thorns, of strong growth; foliage pale green and crimped. Flowers various shades of rose, generally of semi-globular form, large, somewhat fragrant; free in the autumn; quite hardy, enduring more cold than any of the other families except *Baronne Prévost*. The leading sorts are: *Anné de Diesbach*, *Antoine Moutin*, *Auguste Mie*, *Belle Normande*, *François Michelon*, *Gloire de Vitry*, *Lælia*, *Louise Peyronny*, *Mad. Alice Dureau*, *Mad.*

* From *The Rose, a Treatise on the Cultivation, History, Family Characteristics, &c., of the various groups of Roses, &c., &c.* By H. B. Ellwanger. New York: Dodd, Mead & Co. 1882.

Nachury, Paul Neyron, Reine du Midi, Ville de St. Denis.

GIANT OF BATTLES TYPE.—The founder of this family was introduced by Nérard in 1846, and doubtless has Bourbon blood in its veins. The colours are various shadings of crimson, very rich and effective when in perfection, but very fleeting; the sun soon gives them a muddy hue. The flowers are bell-shaped, but small, and have slight fragrance; they are very freely produced in the spring and summer months, but as a rule not in the autumn. The shoots are of moderate or short growth, short-jointed, erect, very stiff and covered with very numerous reddish thorns. The foliage is of lustrous dark green, very subject to mildew. They are difficult to propagate from cuttings, and liable to injury by frost. The leading sorts are: Arthur de Sansal, Cardinal Patrizzi, Crimson Bedder, Empéreur de Maroc, Eugène Appert, Evêque de Nîmes, Lord Raglan, Louis Chaix, Mrs. Standish, Vainqueur de Solferino.

(To be continued.)

THE LEAVES OF BULBOUS PLANTS.

THE little value set on the leaves of bulbous plants, whether grown in pots or in the open borders, is one of the most singular features of modern gardening. Traces of the feeling are found in almost all gardens, large as well as small. Possibly much of this feeling originated or was strengthened by the fact that so many bulbs have been treated as if they were annuals. Thousands and tens of thousands are imported and bloomed, and then lost or destroyed—there is an end of them. And with these bulbs it matters nothing what becomes of their leaves after they have assisted the flowers to expand, and added to their beauty by their verdure while the bloom lasts.

But with bulbs expected to flower many times, or in perpetuity, it is altogether different. Leaves are as essential to such bulbs as lungs or any other vital organs are to us; for in many cases the leaves of one year make the flowering bulb of the next. In all they make the flowers of the succeeding season. This being so, it by no means follows that as soon as the flowers of bulbs fade the functions of

the leaves are also completed. On the contrary, it often happens that the work of the leaves may not be more than half got through. Nothing should be done to force the head of the leaves to rest prematurely. Drought, cold, or excessive heat have often been used to dry off leaves at a time when they demanded copious supplies of water or rich feeding to enable them to create bulbs or blossoms for next year.

Bulbs in pots should have their leaves cultivated and carefully ripened for weeks, or it may sometimes be months, after the flowers have faded, if they are wanted either to bloom in pots or in the open air the following year.

Bulbs in the open air should also be protected from being overrun or starved by other bulbs or plants, if they are desired to yield an annual harvest of beauty. The chief reason why so many choice bulbs degenerate in the open air is because their leaves are utterly starved or neglected. In some cases they are planted in poor and unsuitable soil at first; in a far larger number they are either cut off prematurely or smothered. Sometimes bulbs are left so long in one spot and increase so fast that they smother and choke one another; but only give the leaves of bulbs room to grow, sufficient food, genial conditions, and enough time to ripen, and they will take care that the plant shall yield plenty of blossom and a good succession of healthy bulbs.—D. T. FISH, *Hardwicke House*.

STRIPED FANCY PANSIES.

I PRESUME we are indebted in the first instance to the continental florists for the fine strain of Fancy Pansies now obtainable. They, in raising seedlings, are attracted by types and colours we might be disposed to pass over as of little promise, or perhaps worthless, and by improving these, they have done useful work which has come to be appreciated by English gardeners.

I have now in my garden some plants of distinctly Striped Fancy Pansies that were raised from seed imported from Germany in 1881. As a matter of course a great deal of rubbish results; but there are some prizes among the blanks, and when a good thing puts

in appearance, efforts should be made to improve upon it.

The ground colour of these Striped Fancy Pansies is reddish-cream or yellow, and the stripes and blotches are fiery maroon, orange maroon, and deep velvety maroon; but they vary in depth, colour, and density in various flowers. They are of good size and well-formed, and a few blooms make a very attractive posy. Already such names as Harlequin, Punch, &c., have been given to varieties, and we may look for more of these being offered. They are certain to become favourites if those who offer them will only wait till they have something worthy of being named.

So far good compact habits of growth accompany the striped forms, and the flowers, rising just above the foliage, present to view charming tufts of blossom. When the hot weather sets in, the colours will pale with the heat, and become less attractive; and then, by means of top-dressings of rich soil, and attentions as to water, &c., the grower can do something to assist in the development of flowers of the best quality. A few years will see great improvements in the Striped forms, and the more marked the measure of improvements, the more acceptable will the varieties be to gardeners. But let us hope improvements in the former will not be made at the expense of vigour and compactness of habit.—
R. DEAN.

WIRING TO ROOT ROSES, &c.

THE demand for plants of all sorts was never so pressing as now; and though methods and means of propagation have vastly increased, yet the cry for more plants is constantly arising from all quarters, and is ever becoming more urgent. Hence the importance of giving prominence to any easy mode of increase, such as the wiring of the stems or branchlets of plants. The process is by no means new. Most systems of layering, from that of carnations up to roses, shrubs, or trees, proceed on the assumption of arresting the flow of the sap. This may be done by a slit, a ligature, a peg, a ring, or a heavy weight such as a brick or stone. The object in all these cases is to fix the branch in one spot, and also to check the flow of the sap. The arrestment of the sap

favours the emission of roots at the point where its flow is checked.

Now, nothing arrests the sap more easily or completely than a strand of wire twisted firmly round the bough of a Rose or other twig. A wire ligature is easily applied, and it is at once tight and unyielding. It should not, however, be placed too firmly round the bark, else it will cut it through, and practically the wiring will become ringing—that is, the same as the cutting out a line of bark all round the stem. By using wire pins instead of wooden pegs, most of the advantages of wiring may be secured in the layering of pinks, carnations, &c. It is found that the thin parts of their surface may thus be wired round without injury, but rather to the hastening of the rooting of the grass.

But wiring is more useful with hard-wooded plants, such as roses and other shrubs, especially those that root slowly. The wire holds on without rotting for several years if needful. The longer it remains the tighter it becomes, and consequently the more effectual. Copper wire is the best alike for its pliability and durability. With the layers tightly wired the processes of slitting and tonguing may be safely dispensed with, and it is these that prove so troublesome to novices. But any one with a pair of pliers may twist a thread of wire round a branch, and bury and peg it down into the ground in the usual way. The wiring hastens the rooting of plants that root readily, and forces many to root that can hardly be made to do so by any other means.—D. T. FISH, *Hardwicke*.

THE DOUBLE WHITE HEPATICA.

IS this to be regarded as the “Mrs. Harris” of floriculture, or has it ever existed, if it does not now exist? I was reading in an old gardening book, a few days ago, an account of a double blue Hepatica, that sported (so it was said) to white, and so produced a double white Hepatica, but the following season it reverted to the original blue colour.

A few years ago I had a letter from Mr. Max Leichtlin on this subject. I had been informed that he possessed a true double white form, and inquired if this was so. He wrote in reply that “the white double Hepatica has



existed, and perhaps still exists, but I do not know where. It has once flowered at M. Van Houtte's; and, when visiting my friend the late Dr. Moore, at Glasnevin, I found plants bearing the name *alba plena*, of which he kindly gave me one; and, making my catalogue soon after this, I put it down as existing in my collection, but it turned out to be the single white."

Some time since, when visiting the late Mr. P. J. Perry, at his nursery at Banbury, I saw growing some strong self-sown seedlings from the single white Hepatica, none of which were improvements on the seed parent in point of size and colour; but the flowers did appear to be fuller, and I suggested to Mr. Perry that if he were to fertilise the flowers with their own pollen (if possible to do so) he might make some progress towards realising a true double white Hepatica. Unfortunately, at the time he was in a delicate state of health, and, I fear, nothing was done in this direction. It is years since I was at Banbury, but it would be interesting to know if these seedling white varieties still exist in the Banbury nursery.—R. DEAN, *Ealing*.

APPLE, BEAUTY OF HANTS.

[PLATE 564.]

THE accompanying illustration of this Apple, though so richly coloured, is but an exact and very faithful representation of the samples I had the pleasure of handing to the Editor last autumn. They were from the original tree, yet growing near to the gardener's cottage in Mrs. Eyre Crabbe's beautiful grounds, Bassett, Southampton, and kindly sent me by Mr. Stewart for exhibition at South Kensington.

The Beauty of Hants is not a new Apple; it is even doubtful whether it can be classed as a distinct kind, for it is of the Blenheim Orange type without doubt, but of that Apple a very fine and somewhat distinct stock. It is some eleven or twelve years since I saw the tree in fruit at Glen Eyre, and I was then struck not only by the large size of the fruit, but also by the superb colour shown, and not least by the invariable prominent conical form assumed. A true Blenheim Orange, growing close by, though bearing good fruit was very deficient in all these features.

Having had the honour of christening the Apple, a sample of the fruit was sent to South Kensington, and there received a First-class Certificate. The stock was purchased by the then Heatherside Nursery Co., by which a few years later it was put into commerce. Whether it has met with the wide culture it so thoroughly merits I cannot say. A few grafts worked here several years since have given a fine head, and I found when the tree fruited freely, as it did last year, that the same peculiarities as to form and colour were in this case very prominent. Whether really distinct or not, it is a very fine stock, and should be universally grown.—A. DEAN, *Bedfont*.

REGISTER OF NOVELTIES.

NEW PLANTS.

ASTILBE THUNBERGII, *Miq.*—A robust hardy perennial of Spiraea-like aspect, from Japan; it has bold unequally pinnate or bipinnate leaves, with broad sharply-toothed segments, and flower stems 2—2½ ft. high, bearing branched panicles of very numerous small white flowers; 1st-class Certificate R.H.S. and R.B.S., May, 1881.—Veitch & Sons.

AZALEA RUBIFLORA FLORE-PLENO.—A distinct and promising hardy deciduous shrub from Japan, having soft pilose oblong elliptic leaves, and medium-sized double flowers of a soft lilac-pink colour, marked with carmine-purple spots, very pretty; 1st-class Certificate R.H.S., May, 1882.—Veitch & Sons.

BULBOCODIUM TRIGYNUM, *Adam (Garden, xxi., 295, with fig.)*.—A pretty dwarf Caucasian bulb, flowering in the very early spring (February), and forming a tuft of three broad leaves tapering to the end, from between which grow about a couple of pretty pale lilac flowers. Mr. Baker puts it under *Merendera caucasica*.—T. S. Ware.

DAVALLIA GRIFFITHIANA, *Hooker.*—A fine species of Hare's-foot Fern from Assam and Bhotan. It has long creeping thickish rhizomes, clothed with loose shaggy silvery scales, and dark bluish-green leathery tripinnate fronds of deltoid outline, with large submarginal eup-shaped sori; 1st-class Certificate R.H.S., May, 1882.—W. Howard.

DENDROBIUM CURTISII, *Rehbg. f. (Gard. Chron., N. S., xvi., 102)*.—A Bornean species, with tall slender erect leafless stems, bearing short racemes of small magenta-rose flowers, the younger shoots furnished with linear-lanceolate leaves.—Veitch & Sons.

DENDROBIUM FORMOSUM GIGANTEUM, *Hort.*—A very fine variety from Upper Burmah, with stems reaching 3 feet in length, and producing flowers measuring 6 in. in diameter; the lip is 2 inches broad, with a bright golden blotch.—Heath & Son.

GLOBBA ATROSANGUINEA, *Teijsm. et Binnend. (Bot. Mag., t. 6626)*.—A pretty Zingiberaceous stove plant of dwarf habit, introduced from Borneo, and first called *G. coccinea*. The stems, which are about as thick as a goose quill, are crowded, 12—18 inches long, gracefully arching on all sides, furnished with deep glossy green leaves, and terminating in a dense raceme of flowers, of which the bracts are scarlet and the perianth yellow. The plant is continuously in bloom during the greater part of the year, and the flowers are effective for bouquets; 1st-class Certificate R.B.S., July, 1881; and by R.H.S., October, 1881.—Veitch & Sons.

GYMNOGRAMMA LAUCHEANA GRANDICEPS, *Dixon*.—A rather pretty gold fern with elongated bipinnate fronds, having the segments blunt at the end, while the frond terminates in a broadly tasselled drooping apex, the under surface clothed with ceraceous meal of a palish yellow colour. Of garden origin.—S. Dixon & Co.

IBERIS GIBALTARICA HYBRIDA, *Hort. (Gard. Chron., N. S., xvii., 638)*.—A very distinct and ornamental low growing herbaceous plant, said to be a hybrid between *I. corifolia* and *I. gibraltarica*, and uniting the foliage of the latter with the more compact character and inflorescence of the former. The flowers are white suffused with pale lilac. It was distributed by Mr. W. Thompson, and was awarded a 1st-class Certificate at Manchester on May 2.—W. Brockbank.

IRIS VAN HOUTTEI, *Hort. (Garden, xxi., 286)*.—A rare handsome and distinct hybrid, said to have been raised by M. Max Leichtlin between *I. susiana* and *I. iberica*, and to be more akin to the former, having more resemblance to it in the markings, but coming earlier into bloom (April). The flowers are marked with reticulate veins of a dark brown or black.—New Plant Co.

MASDEVALLIA HARRYANA IMPERIALIS, *Hort.*—A superb variety of the *M. Harryana* type, remarkable for the large size of its highly-coloured flowers, as well as for the breadth of their sepals and their brilliant colour; the flowers are nearly three inches across, the sepals broad and spreading, and the colour a rich glowing crimson-magenta, deepening towards the tails of the sepals. It is by far the finest of its race. New Grenada.—R. Warner.

ONCIDIUM TERETIFOLIUM, *Hort.*—A rather attractive species of the *Cebolleta* group, with thickish erect cylindrical leaves, and erect many-flowered panicles of rather small but abundant bright yellow flowers; 1st-class Certificate R.H.S., May, 1882.—Sir T. Lawrence.

PINGICULA CAUDATA, *Schlechtendal (Bot. Mag., t. 6624)*.—A very beautiful Mexican perennial, in habit like our native Butterworts. It has a rosulate tuft of leaves, which while young are small ovate densely imbricated, but when old become oblong and recurved; the flowers are large deep bright violet-purple, and conspicuously spurred, the corolla often two inches in diameter; 1st-class Certificate R.H.S., April, 1881 (as *Bakeriana*); also R.B.S., April, 1882.

PRIMULA OBCONICA, *Hance (Bot. Mag., t. 6582, as P. poculiformis)*.—A remarkably distinct and pretty hardy Primrose, from China in the neighbourhood of Ichang, whence it was introduced. It produces petiolate, roundish-cordate toothed leaves, and umbels of soft lilac flowers, which are about the size of the English Oxlip (*P. elatior*) on a rather slender peduncle that rises well above the foliage; it is likely to find favour as an autumn flowering species.—Veitch & Sons.

PTERIS SERRULATA CRISTATA-LACERATA, *Hort.*—A very pretty dwarf decorative greenhouse fern. The fronds are 9–12 inches long, slender, the margins serrulate, each pinna being divided into a tassel-like or corymbose drooping bunch of lacerated segments, which produce a most graceful appearance; adapted for all decorative purposes.—B. S. Williams.

RHODODENDRON FORTUNEI.—An evergreen shrub of vigorous habit, not new, but seldom seen in blossom. The flowers are large, full, of a delicate pink, and borne in bold trusses; shown as Mrs. Charles Butler; 1st-class Certificate R.H.S., May, 1882.—Mr. Geo. Aslett.

ZYGOPETALUM CLAYII, *Rehder f.*—A beautiful hybrid Orchid possessing very desirable qualities, being of free growth, and producing finely-coloured handsome flowers. The sepals and petals are almost wholly brownish-purple with a narrow green border,

and the lip is of an intense bluish violet; it is a cross between *Z. crinitum* and *Z. maxillare*; 1st-class Certificate R.H.S., May, 1877.—B. S. Williams.

NEW FLOWERS.

AMARYLLIS, *Mrs. B. S. Williams*.—A very desirable acquisition, being perhaps the purest of the whites yet obtained. The flowers are of medium size and good form, the colour clear white without markings of any kind; a great improvement on the whites usually seen; 1st-class Certificate R.B.S., April, 1882.—B. S. Williams.

AUBRIETIA VIOLACEA.—A dwarf close-growing variety with well-formed deep violet purple flowers; distinct and good; 1st-class Certificate R.H.S., April, 1882.—R. Dean.

AURICULAS.—*Agamemnon*: green-edge; a large and striking flower with very fine pip and truss, having a golden tube, dense solid circular white paste, broad dark maroon well-defined body colour, and clear smooth bright green edge; 1st-class Certificate National Auricula Society, April, 1882.—Rev. F. D. Horner. *Blue Bell*: grey-edge; a very pretty novel variety, with mealed foliage, the truss bold, the pips large and circular, with a pale yellow tube, very fine paste, bright violet blue ground colour, and smooth silvery grey edge; 1st-class Certificate N.A.S., April, 1882.—Rev. F. D. Horner. *Brunette*: self; a very distinct sort, with large truss supported on a bold stem, the tube rich yellow, the paste smooth and dense, but scarcely circular, the colour a very dark maroon, well defined; a flower of high finish; 1st-class Certificate N.A.S., April, 1882.—E. Pohlman. *Duke of Albany*: self; green-leaved, the pip smooth and circular, with a golden tube, solid white paste, and very rich dark edge; 1st-class Certificate N.A.S., April, 1882.—J. Douglas. *Godfrey Horner*: white-edge; a very promising flower, of superior quality, with rich golden tube, dense smooth paste, dark body colour, and very fine white edge; 1st-class Certificate N.A.S., April, 1882.—Rev. F. D. Horner. *George Rudd*: grey-edge; a variety with fine mealed foliage, bold well-displayed truss and smooth pip, with golden tube, solid circular paste, dark maroon ground colour, the edge rather narrow, but the flowers very round and smooth; 1st-class Certificate N.A.S., April, 1882.—T. Woodhead. *Jumbo*: green-edge; a variety with smooth well-rounded pip, having a fine bright yellow tube, dense smooth but rather narrow paste, dark claret body colour, and broad clear bright green edge; 1st-class Certificate N.A.S., April, 1882.—J. Douglas. *Luna*: grey-edge; a large flower of good proportions, with bright yellow tube, smooth paste, rich deep maroon ground colour, and clear circular edge; 1st-class Certificate N.A.S., April, 1882.—Rev. F. D. Horner. *Mrs. Dodwell*: white-edge; a large and refined flower, with mealed foliage, pale tube, good paste, dark body colour, and well-defined edge, even in all its parts; 1st-class Certificate N.A.S., April, 1882.—T. Woodhead. *Mrs. Moore*: grey-edge; an extra fine flower, with very symmetrical truss, and having a round rich golden tube, dense circular paste, bright maroon ground colour, and very pure smooth edge, a large finely rounded flower, regular in all its parts; 1st-class Certificate N.A.S., April, 1882.—J. Douglas.

Of Alpine Auriculas the following have won distinction:—*Ada Hardwidge*: white-centre; flowers rather small but very promising, the lobes with dark velvety maroon base, shading off to pale bright lilac purple; 1st-class Certificate N.A.S., April, 1882.—J. Douglas. *Amazon*: gold-centre; a very fine bright-looking flower, large, and of fine form, the tube bright yellow, the lobes deep red at the base shading off to a light but clear rosy cerise at the edge; 1st-class Certificate N.A.S. and R.B.S., April;

1882.—C. Turner. *Amelia Hardwidge*: gold-centre; very fine and attractive; the tube bright yellow, the lobes of a rich dark claret shading off to light bronzy cerise; 1st-class Certificate N.A.S., April, 1882.—J. Douglas. *Charles Darwin*: white-centre; a striking variety, with fine smooth pips, the lobes with a deep velvety plum-coloured base and a slight edge of bright purple; 1st-class Certificate N.A.S. and R.B.S., April, 1882.—C. Turner. *Princess of Waldeck*: gold-centre; a very pretty variety, with clear golden tube, the lobes with a maroon base, edged with deep cerise; 1st-class Certificate N.A.S., April, 1882.—J. Douglas. Mr. C. Turner showed an interesting group at the Royal Botanic Society's April Show, and received 1st-class Certificates for the following in addition to those named above:—*Gladiator*: gold-centre, violet shaded edge; *J. T. D. Llewelyn*: gold-centre, violet shaded edge; *Mentor*: gold-centre, dark purple shaded.

CARNATIONS (TREE).—*Conqueror*: Salmon-rose, slightly striped with purple, large and full, distinct and pleasing. *Enchantress*: pale rose or deep pink flaked with dark purple, very fine and full. *Flambeau*: pale ground, the petals deeply edged with black and dull wine-red, fine habit, full and very free. *Hector*: pale red, fine petal, full. *Juliette*: pale bright rose, good petal, fine and full. *Nimrod*: pale clear red, large and full, fine petal. *Premier*: bright crimson, large, full, and free, rather rough, but fine in colour. *Rufus*: rich scarlet, slightly shaded with dark crimson, very large and full, bright. *Whipper-in*: scarlet flaked with black, fine, full, and free-blooming, unique in colouring. All shown by Mr. C. Turner, and all awarded a 1st-class Certificate, April, 1882, by a scratch committee of the National Carnation and Picotee Society. *Howard*: a pale scarlet, large and full, but a little rough; a good decorative and market variety, and awarded a 1st-class Certificate by the R.H.S., May, 1882, as a decorative plant.—W. Howard.

CINERARIA (DOUBLE-FLOWERED), *Mrs. Thomas Lloyd*.—A splendid double-flowered variety raised by Mr. Greenfield, gardener to Thomas Lloyd, Esq., the Priory, Warwick; the flowers are remarkable for their large size and brilliant colouring; they are globular, more than an inch and a half in diameter, and of a rich magenta-crimson; 1st-class Certificate R.H.S. and R.B.S., March, 1881.—Veitch & Sons.

CLEMATIS (PATENS).—*Charles Darwin*: a very striking new full double variety, with flowers of a soft shade of lilac, of good size and form, and striking in character. *Daniel Deronda*: a large-flowered variety of good habit, with broad sepals narrow at the base and pointed at the apex, of a dark purple, with a paler coloured bar, and shaded towards the tips with a bronzy or coppery tinge. *Princess Beatrice*: a saucer-shaped flower of 9–11 sepals of a very pale reddish lilac, with white stamens.—All awarded 1st-class Certificate R.B.S., April, 1882, and all shown by C. Noble. Of less merit in the same batch, were *Maud Branscombe*, white with red stripes; *King Arthur* in the way of *Stella*; *Endymion*, white; *Duke of Albany* in the way of *Princess of Wales*; *Duchess of Albany*, white, with euneate petals.

LOBELIA, *Finsbury Park Blue*.—A good bedding variety of the *pumila* type, producing its bright blue flowers in profusion throughout the season; it is well distinguished from other varieties by the absence of the usual white eye, and unquestionably the finest blue Lobelia yet introduced, and for carpet bedding unrivalled.—Veitch & Sons.

PANSY (BEDDING) *Mr. Llewelyn*: a large golden yellow self, with a dark blotch; of fine shape and good habit; 1st-class Certificate R.H.S., April, 1882.—H. Hooper.

RHODODENDRON, *Alice Mangles*: a fine hybrid

raised between *R. Aucklandii* and the common *R. ponticum*; the flowers are of a delicate rose-pink colour, flushed with a deeper hue; of free vigorous habit, and in all probability hardy; 1st-class Certificate R.H.S., April, 1882.—J. H. Mangles.

POLYANTHUSES (DECORATIVE).—White: *Queen of Whites*, large and circular, with crenate edge, creamy-white with very large radiating orange eye. *Venus*, somewhat smaller, but firm and circular, white with bold orange eye of five obtuse lobes deeper in the centre. Yellow: *Aurora*, large and well-formed, with broad segments often six in number, sulphur yellow with orange flame running half-way up each segment. *Primrose Gem*, a fine circular flower, pale yellow with a bold eye of orange-colour, deeper towards the centre. *Her Majesty*, similar in colour to the last, but more deeply marked in the eye. Dark: *Jupiter*, very rich dark velvety maroon, of fine shape and substance, with a five-lobed orange eye, pin-eyed.—All from Mr. W. Caudwell, Wantage.

POLYANTHUSES (HOSE-IN-HOSE):—Yellow: *Golden Prince*, flat medium sized deep golden or golden yellow flowers, fine rounded lobes, with a radiating orange eye. *Irish Cowslip*, smaller cupped drooping flowers, bright yellow and very pretty. *Queen*, large flat pips, of a bright yellow, with a radiating eye of deep orange. Dark: *Charlotte Jones*, large and showy but pin-eyed, the flowers crimson maroon with orange centre. *Crimson Queen*, bright chestnut red, with narrow yellow edge, and large orange centre. *Magenta Queen*, smaller than the preceding, the flowers of a lively purplish crimson, with a slight pale edge and orange centre.—All from Mr. W. Caudwell, Wantage.

ROSE (H.P.), *Comtesse Camondo*, with full, deep, firm, well-formed flowers of a distinct shade of dark claret crimson; the form all that can be required in the full cupped type, and the novel colour very pleasing; shown at R.B.S., April, 1882.—Paul & Son. *Queen of Queens*: silvery pink or peach-blossom, large, full, and deep, but altogether of pleasing character, rather deficient in substance, and much wanting in fragrance.—W. Paul & Son. *Ulrich Brunner fils*: a rich carmine rose very bright in colour; a good useful looking flower, and very fragrant; 2nd-class Certificate R.H.S., May, 1882.—W. Paul & Son. *Duchess of Albany*, a hybrid Tea rose, with pleasing peach-coloured flowers having a soft rose-coloured centre.—H. Bennett.

VIOLA (BEDDING), *Mrs. Laing*: white slightly tinted with blue, dark eye; dwarf habit, and very good; 1st-class Certificate R.H.S., April, 1882.—H. Hooper.

NEW FRUITS.

GRAPE, ALPHONSE LAVALLEE (*Bull. d'Arb.*, 4 ser., i., 72, with plate).—A new Belgian Vine, raised by M. Narcisse Gaujard, from whom on his retirement it passed with other seedlings into the hands of M. Van Houtte; raised from the Gros Colman in 1868 and first fruited in 1873. Last year it was cultivated with good results by M. Lerot, of Vilvorde, a vine grower of repute, who reports favourably to M. Burvenich. The bunch figured is short and compact, the berries large rather oblong-ovoid, of a deep blue-black with a thick white bloom. The skin is thick, so that it is a keeping grape of the Lady Downe's type; it ripens with the Black Hamburg, but is said to hang longer than this variety. One of its peculiarities is that the leaves are thin, almost membranous, slightly downy, and before they fall take on a lively wine-red tint. M. Van Houtte describes it as being robust, bearing abundantly bunches of enormous size, the berries large black, with tender flesh, and having a delicate and perfumed flavour; a variety of the first class, ripening with the grapes of the second series. It seems to be worthy of trial.

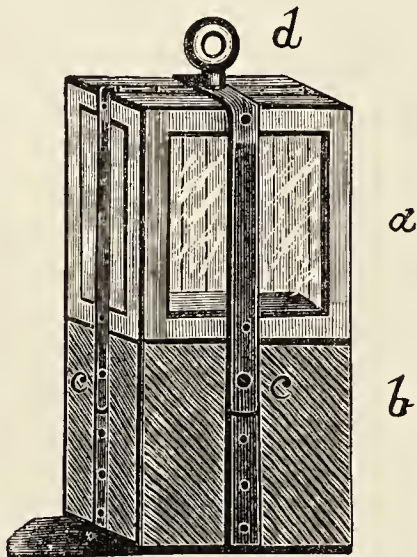
PEAR, JOSÉPHINE DE MAUBRAY (*Bull. d'Arb.*, 4 ser., i., 97, with plate).—A Belgian variety, said to be of very good quality, and very hardy and fertile. It was raised by M. l'abbé Randour, of Maubrais-lez-Antoing, and is a yellowish fruit of medium size, speckled with russet, roundish turbinate, the flesh tender, melting, and juicy, sugary and with a slight perfume of rose; it is of the first quality, and ripens in November and December, sometimes continuing till January; awarded a silver medal in 1878 by the Société Royale d'Arboriculture de Tournai. It bears the synonym of Beurré Bussy.

NEW VEGETABLE.

CELERY, Carter's Incomparable Crimson Celery.—Mr. Gilbert, of Burghley, describes this variety in the *Gardeners' Chronicle* as growing with him from 18 to 20 in. high, thick, solid, and crisp, and having that rich, nutty flavour so desirable in a good Celery. "My experience of it is for a late crop, but doubtless it is all that can be desired for early work. Colonel Clarke's Solid Red and Leicester Red both bolted with me, for which I blamed the mildness of the season; but I lifted ten dozen of Carter's Crimson, not one of which showed any sign of starting to flower. This I take as conclusive that it is the best variety I am acquainted with."

NEW APPLIANCES.

THE ROYAL BOTANIC SOCIETY'S TRAVELLING PLANT CASE.—Seeds travel by post if gathered when perfectly ripe, packed dry in strong canvass bags or lined paper envelopes, and transmitted without delay; but plants can only be preserved through long sea voyages in glazed cases, such as those patented by Mr. Bull, and special care and attention are necessary both in packing and during the voyage. In the case of private individuals desiring to bring home or send abroad any particular plant, the cases just alluded to are too cumbrous, but the Royal Botanic Society's Case, designed by Mr. W. Sowerby, of which an illustrated account is given in the last number of the Society's *Quarterly Record*, whence, thanks to Mr. Sowerby, the annexed woodcut is derived, meets the difficulty in a most efficient manner.



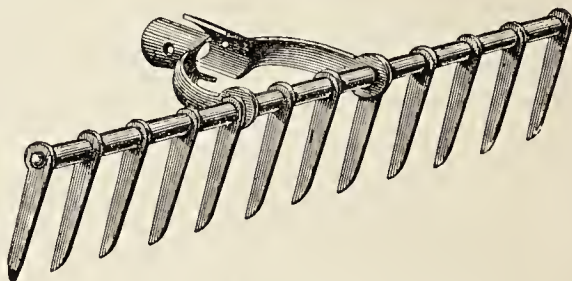
MR. SOWERBY'S TRAVELLING PLANT CASE.

This Plant Case is intended to be treated during transit exactly as a bird-cage containing a living bird, and in this way has proved very successful in preserving plants through long voyages. It may be

made of any suitable dimensions; those in actual use are 2 ft. high by 1 ft. square. It consists of two square boxes, the upper one (a) of framed wood, with stout glass sides, the lower half (b) a strong square wooden box. Bands of broad hoop-iron pass over the top and sides of the upper half, and extending four or five inches below, lap over the lower half to which they are fixed—on all four sides—by thumb or other screws, as at (c); a ring-bolt is fixed at the top (d), by which the case may be slung or suspended in any suitable part of the ship or carriage. A tongue or fillet is run or fixed on the upper edge of the lower box, which fits into a corresponding groove in the lower edge of the upper box, and prevents the entry of sea-water spray.

We learn from Mr. Sowerby, that some years ago one of these cases—which are little known—brought over 14 young plants of Mangrove, all alive; and that lately one has carried to Zanzibar along with some other plants, the Stephanotis which Sir John Kirk reports as being now in a flourishing condition there.

MARPLE'S IMPROVED GARDEN RAKE.—A sample of this rake now before us shows it to be, as we had concluded from the illustration here introduced, a



MARPLE'S IMPROVED GARDEN RAKE.

light and handy implement, such as may be recommended for general use. It has, we believe, met with general approval. The teeth being entirely of steel must be lasting, and from their shape and position are calculated to do good work: they are, as will be seen, flat, and in shape something like the blade of a pocket-knife, with the edge turned inwards, and are threaded upon a diamond-shaped rod, a short close-fitting tube being fixed between them. At the end a nut secures the whole, and, consequently, should a tooth be broken it can easily be replaced. The socket for the handle is in two parts, and is threaded on the bar in the same way as the teeth, the two half-tubes so meeting that a handle of any size can be used. The sizes vary from 6 to 16 teeth.

The merits of this rake are: its lightness, which is remarkable, its simplicity, which is at once evident, and its durability, of which the material and workmanship are a sufficient guarantee. There is a smartness about the implement which at once commends it to notice.

THE BRADGATE PARK SEAT.—Ordinary moveable garden and park seats are numerous, and there are many very good types to be met with in common use, but seats suitable to be fixed around the trunk of a tree, at once elegant and easy, are not so common. The one we now figure, thanks to the courtesy of Messrs. Vipan & Headly, of Leicester, appears to meet all the requirements of the case, and we are therefore glad of the opportunity of drawing attention to it. The seat has been designed specially for placing around trees in parks, pleasure-grounds, &c., and the idea has been well carried out. The seat is made in three sections of hard wood, bent to shape, and the uprights are of wrought iron. It may be

made of any required size to order, but the size here shown is 6 feet in diameter, adapted to fix round a tree 2 feet 6 inches or less in thickness. The seat is both light and strong, and is sufficiently portable; while as to colour it can of course be painted to suit any taste.



THE BRADGATE PARK SEAT.

IMPERIAL HORTICULTURAL SHADING.—Samples of this new shading material in four qualities have been sent to us. It is a cotton fabric of different stoutness, and woven so that there are interstices between the threads which admit light and air. It is thus well adapted for protecting fruit-trees; while for shading hothouse roofs the open texture will be a great advantage, because it will temper but not altogether obstruct the light, while the fierce rays of the sun will be effectually broken.—R. H. Hampson.

NEW BOOKS.

The **BOTANICAL MAGAZINE** for May figures *Phalænopsis Stuartiana*, Rehb. f. [t. 6622], a charming Philippine Orchid, already figured by us. *Stigmaphyllon littorale*, A. Juss. [t. 6623], a malpighiaceae stove climber from South Brazil, with orbicular ovate leaves, and corymbs of yellow flowers having five unguiculate petals, all parts of the plant except the petals furnished with forked hairs.—Kew. *Pinguicula caudata*, Schlecht. [t. 6624], a beautiful Mexican perennial cool stove herb, with the leaves small ovate densely imbricate while young, becoming obovate obtuse spreading with a thick midrib when older, the flowers spurred of a deep bright violet-purple.—F. Sander. *Satyrium nepalense*, Don [t. 6625], a pretty terrestrial Orchid common on the hills of India, with erect spikes of rosy-pink very fragrant flowers.—Kew. *Globba atosanguinea* [t. 6626], a pretty scitamineous stove herb, from Borneo, known also as *G. coccinea*.—VEITCH & SONS.

The **GARDENERS' CHRONICLE** (April 29—May 13) gives us notes on *Euadenia emineus*, Hook f. (p. 557), a beautiful shrubby capparid from West Tropical Africa, with trifoliate leaves, and racemes of pale yellow flowers remarkable for having two very long erect petals.—W. Bull. *Cattleya Wallisii*, Lind. (p. 557), a fine Orchid noticed at p. 75. *Thrixspermum Berkeleyi* Rehb. f. (p. 557), an Indian Sarcocylus with cuneate ligulate leaves, and pendent racemes of white and amethyst flowers as large as those of *Aërides Larpentæ*. *Angræcum dependens*, Rehb. f. (p. 558), a fine species from Madagascar, in the way of *A. Ellisii*, but with longer spurs to the white flowers.—H. Low & Co. *Odontoglossum ligulare*, Rehb. f. (p. 558), a fine plant

supposed to be a wild hybrid, with orange yellow brown spotted flowers, having the lip a paler yellow nearly covered by a large brown blotch.—Sir N. M. de Rothschild. *Phaius Blumei assamicus*, Rehb. f. (p. 558), a fine Indian Orchid from Assam and Birmah of which four varieties are noted: *luteo-albus* with yellowish flowers and a light yellow lip bordered with white.—W. Bull, Veitch & Sons; *purpuratus* with deep yellow flowers, the lip orange bordered with purple.—Veitch; *picturatus* pale yellow, with the lip yellow, its edges light purple with dark purple stripes.—W. Bull; *oculatus* with brownish flowers, the lip yellow, with a purple blotch on each side lobe.—Ritter. *Vanda Sanderiana*, Rehb. f. (p. 588), a fine Orchid with the habit of *Saccolabium violaceum*, but with broader leaves, and many-flowered spikes of flowers five inches across, the upper sepal and petals mauve with basilar purple stripes, the lateral sepals yellow with broad purple veins and mauve border, and the lip dark brown with green sides; presumed to be of Asiatic origin, and the grandest novelty introduced for years.—F. Sander. *Catasetum Christyanum*, Rehb. f. (p. 588), an ally of *C. saccatum*, with reddish brown flowers, the lip light greenish yellow with an irregular fringe.—T. Christy. *Odontoglossum angustatum stylites*, Rehb. f. (p. 588), remarkable for the styliform process on each side of the callus.—B. S. Williams. *Odontoglossum Pescatorei Veitchianum*, Rehb. f. (p. 588), the *O. Pescatorei Veitchii*, Hort., noticed at p. 76.—Veitch & Sons. *Phaius Tankervilleæ fol. var. Mariesii*, Rehb. f. (p. 588), a Japanese garden variety, in which the cinnamon colour of the sepals and petals is more vivid than in the ordinary forms, with the floral organs shorter and broader.—Veitch & Sons. *Masdevallia rosea*, Lindl. (p. 628), a charming Ecuadorean species, with cuneate-oblong acute leaves; the mauve-rose recurved flowers, 2—3 inches long, have short crimson-purple tails to the lateral sepals, and grow on shortish peduncles not much elevated above the leaves; now flowered for the first time in Europe.—Sir T. Lawrence. *Catasetum Christyanum chlorops*, Rehb. f. (p. 628), a variety with frog-green sepals and petals, and a dark green fringed lip.—T. Christy. *Phalænopsis sumatrana paucivittata*, Rehb. f. (p. 628), a variety having the white flowers marked with three or four cinnamon-purple bars, and the lip finely striped with mauve.—Veitch & Sons. *Rhododendron Hookeri*, Nutt. (p. 628, fig. 96), a very handsome evergreen shrub from the snowy mountains of Bootan, with bluntly oblong leaves, having on the under surface scales scattered in tufts along the veins, and fine heads of blood-red bell-shaped flowers in the way of *R. Thomsoni*.—J. H. Mangles. *Odontoglossum lyroglossum*, Hort. (p. 632, fig. 97), a grand novelty somewhat resembling *O. Wilckeanum*; the flowers are large, in racemes, bright yellow with bold blotches of chestnut red, the lip small twisted fringed and toothed.—W. Lee.

The **GARDEN** (April 29—May 6) figures *Mesospinidium vulcanicum* [pl. 334, lot 339 as marked], a pretty cool-house Orchid, from the Upper Amazon region, bearing graceful racemes of bright rose-coloured flowers. *Double Cinerarias* [pl. 335], a group selected from plants grown by Mr. Cannell, of Swanley; in due time these double forms will become very useful decorative plants. *Salvias* [pl. 336], a group of ornamental species consisting of: 1, *involuta Bethelli*; 2, *leucantha*; 3, *splendens Bruanti*; 4, *splendens M. Issanchou*; 5, *cacaliaefolia*.

The **GARTENFLORA** (April—May) figures:—*Corydalis Sewerzowii*, Regel [t. 1077], an interesting fumariad from Turkestan, with a tuberous rootstock, glaucous ternate leaves, the leaflets again divided, and having obovate leaflets, and the long-spurred yellow flowers in terminal racemes.—St. Petersburg Botanic Garden. *Verbascum olympicum*, Boiss. [t. 1078],

a noble species, with a conical tuft of large greyish lanceolate leaves, and a densely branched panicle of large rich yellow flowers. It is very showy, probably biennial, and coming from the Bithynian Olympus is possibly a little tender in our climate.—Haage et Schmidt. *Cereus Philippi*, Regel [t. 1079, fig. 1], a Chilian Cactus with stoutish cylindrical long-spined stems, and medium-sized red flowers. *Cereus serpentinus* [t. 1079, fig. 2], a subscandent night-blooming species with 10-angled stems, and large rosy-red flowers. *Sedum Rhodiola linifolia*, Regel [t. 1080, fig. 1—3], a neat herbaceous perennial, with linear oblong sparingly-toothed leaves, and terminal close heads of reddish-purple flowers. *Dracocephalum imberbe*, Bunge [t. 1080, fig. 4—5], a dwarfish Siberian perennial herb, with cordate roundish deeply crenate leaves, and abundant showy bluish-lilac flowers in axillary verticillasters towards the ends of the stems. *Nemastylis celestina*, Nuttall [t. 1081, fig. 1], a pretty Californian irid, with bulbous roots, linear acute leaves, and showy hexapetaloid flowers, the perianth segments $1\frac{1}{4}$ inch long, obovate-oblong, of a deep purplish blue. *Herbertia cœrulea*, Herb. [t. 1081, fig. 2], a dwarf irid, with short grassy sharp-pointed leaves, and blue flowers, of which the three outer segments are large spreading, and marked with a black band and spots near the base, and the three inner ones are minute. *Echinocactus Kunzei*, Forst [t. 1082, fig. a—c] and *Opuntia stricta*, Haw. [t. 1082, fig. d—f].

BELGIQUE HORTICOLE (Jan.—Feb.) gives an exterior view of the Winter Garden at the Palace of Laeken, and figures the following novelties:—*Stromanthe Lubbersiana* [t. 1], the Phrynium Lubbersi of Hort. Makoy, a handsome and distinct foliage plant with erect leaf-stalks and spreading or deflexed blades, oblong acuminate unequal at the base, 9 by $2\frac{1}{2}$ inches, bright green with yellow green streaks and marblings in the direction of the veins, the under surface glaucous; introduced from Brazil.—Jacob-Makoy. *Vriesia incurvata*, Gaud. [t. 2], a handsome Brazilian Bromeliad, with thick ligulate acuminate green leaves, and flat ovate spikes of reddish-orange bracts from which project the green-tipped yellow flowers.—M. Truffaut.

L'ILLUSTRATION HORTICOLE (4 liv.) contains figures of:—*Codiaeum (Croton) magnificum*, Lind. [t. 447], a handsome variety with oblong acuminate light green leaves, with a central irregular band of creamy yellow changing to deep red; introduced from the Solomon Isles.—J. Linden. *Heliconia triumphans*, Lind. [t. 448], a magnificent musad from Sumatra, something like *Calathea zebrina*, the large bright green leaves being marked at intervals by lateral bands of blackish green.—J. Linden. Two views of the Palm House at Herrenhausen are also given.

The GARTEN-ZEITUNG (April—May) has coloured figures of *Cattleya Reineckiana*, Rehb. f. [p. 159], a handsome white-flowered species faintly marked with yellow and purple on the lip. *Montbretia Pottsii*, Baker [p. 159], a gay-flowered irid, with branching spikes of small tubular red flowers. *Graft hybrid Potatos* [p. 207], showing figures of the Mexican and Black Kidney varieties, and of two tubers resulting from the grafting of these varieties.

REVUE HORTICOLE (April 1—May 16) figures *Peach Belle Henry Pinaud* [p. 148], a handsome variety of the Madeleine group, which we shall more fully describe hereafter. A beautiful group of varieties of *Salpiglossis sinuata* [p. 170], a hardy annual not sufficiently grown. *Pear Madame Chaudy* [p. 192], a very large Pear, recalling the appearance of Doyenné du Comice, ripe at the end of November and beginning of December. *Physalis violacea* [p. 216], a purple fruited variety of the plant commonly known as *P. edulis*.

BULLETIN D'ARBORICULTURE (March—April) gives figures of *Grape Alphonse Lavallée* and *Pear Joséphine de Maubray*, for notices of which see under New Fruits.

REVUE DE L'HORTICULTURE BELGE (April—May) has a plate of *Fancy Carnations*, and another of *Cypripedium Boxallii atratum*, in which the back sepal is mottled with dark brown on a greenish ground, and broadly margined with white, the broad obtuse petals of a reddish brown spotted with yellow green and margined with the same colour.

The JOURNAL DES ROSES (April—May) gives figures of *Rose Madame Etienne Levet*, a bright cerise rather thin flower, said to have been raised between H.P. A. Verdier and a Tea rose; and *Rose Panachée d'Angers*, rose colour, striped and marbled with cerise, a rather thin and open flower.

GARDEN GOSSIP.

A GRAND EXHIBITION OF ORCHIDS, at Mr. Bull's establishment for New and Rare plants, 536, King's Road, Chelsea, was opened on May 22 to those who received invitations; and is to be kept open a few days longer. The attractive display of last year will be fresh in the memory of many who had the privilege to see it, and it is only reasonable to expect that first effort to be surpassed on this occasion.

— WE are informed that a grand EXHIBITION OF ORCHIDS will be made by Mr. B. S. Williams, during the next two months, at the Victoria Nursery, Upper Holloway, to which all persons interested in them are invited. The specimen Orchids which have hitherto gone the round of the public shows, are this year to be kept at home for the benefit of those who may visit the collection, which being always well worth seeing, will doubtless be especially so when the extensive material at command is arranged with a view to effect.

— AMONGST the AURICULAS at MANCHESTER was a superb and marvellous specimen of the grey-edged Richard Headly, grown by the Rev. F. Tymons, of Baskin Hill, Drmcondra, Dublin, a well-known successful cultivator. The plant had a truss of twelve pips, all large, fully expanded, refined, and correct, and so finely mealed on the edges as to be almost white. The variety is seldom seen at the northern shows, and never in a state comparable to this. This fine example, not being sent for competition, was unanimously awarded a Special First-class Cultural Certificate. By the side of it was a grand specimen of the Rev. F. D. Horner's Sapphire, a new blue self raised, we believe, between Metropolitan and Formosa; it also had a superb truss of twelve fine pips, and is a rare addition to the blue selfs.

— IN the New HELIOTROPE WHITE LADY, we have one of the most chaste and charming varieties of *Heliotropium peruvianum* yet obtained. It is of a robust yet compact habit of growth, sturdy and highly floriferous; the corymbs of flowers are bold and of ample breadth, and the individual blossoms large, white, exhaling a powerful fragrance. Messrs. Cannell & Sons were awarded a First-class Certificate for it at South Kensington when exhibited by them in a well-flowered condition in December last, since which time we have ourselves proved it to be in all respects an acquisition.

— **MR. SHIRLEY HIBBERD'S CATALOGUE** OF AURICULAS, New and Old, recently published in the *Gardeners' Magazine*, is specially valuable for reference, no other such complete record of the varieties of this charming spring flower being in existence. It gives the names and characters of 280 varieties, thus indicating their respective merits, and must have cost the author much time and labour, for which Auricula fanciers are greatly indebted to him.

— **THE PELARGONIUM SOCIETY** will hold its Show this year on June 27, in the gardens of the Royal Horticultural Society at South Kensington. The liberal prizes offered should bring together a good show, and we trust that the growers will be warm-hearted in their efforts to maintain the reputation which the Society has won by its previous and continued success.

— **THE** value of CHARCOAL in POTTING SOILS, as an agent in keeping them open and porous, can hardly be too highly estimated. Such prime Auricula growers as the Rev. F. D. Horner, Mr. S. Barlow, Mr. B. Simonite, and others use it largely in their composts, and with the best effects. It is not a mere mechanical agent like sand, but an active principle, having, as Liebig remarks, "a physical as well as a chemical effect on soils decidedly useful. It renders them, as far as it is present, light and friable, and gives additional warmth to them by its colour, which absorbs and retains readily the rays of the sun during the day; wherever charcoal has been applied rust never affects the growth of Wheat." Those who use charcoal in Auricula soils find less losses among their plants than when sand is employed to give it a porous character, and the roots ramify more freely in it. The cost of charcoal as compared with sand is much heavier, but its operation is so beneficial as to compensate in a great degree for its extra cost. Then there is the labour of breaking it up small enough for potting purposes; if it could be bought reduced to finer particles it would be advantageous, and perhaps this boon will be allowed should the demand for it materially increase.—(*Gard. Chron.*, N.S., xvii, 437.)

— **THOSE** charming little Amaryllids, the NERINES, require the protection of a cold frame, or a cold dry greenhouse such as that in which New Holland plants are grown; stove heat or the atmosphere of a close, moist house causes them to dwindle away. The chief points to be observed in their management, as told us by Mr. O'Brien in the *Garden*, is to give them a long and decided period of rest by drying them off and keeping them at all times in a light, sunny, airy situation. From the time the foliage withers late in the spring until the flower spikes appear in August, September, and October, the plants should be kept on a sunny shelf in a dry greenhouse or in a dry, cold frame with the lights on and tilted to admit air. Throughout the time just alluded to not a drop of water should be given them until the spikes begin to appear. During the flowering season, and onward through the winter and spring, until the leaves begin to wither again they should be liberally watered. Repotting should be done as seldom as possible, as it generally throws them a year out of bloom. The proper soil for them is turfy yellow loam.

— **At** the Royal Botanic Society's Show on April 26, a few choice AURICULAS were

shown. For twelve show varieties, Mr. Douglas won the first position with Lord of Lorno (Campbell), Mrs. Moore (Douglas), a new grey-edge, with large pips, remarkable for the breadth of the paste and the depth of the body colour; Jumbo (Douglas), a well-balanced green-edge, of great promise; Smiling Beauty (Heap), Blackbird (Spalding), Dr. Horner (Reid), C. J. Perry (Turner), Ne Plus Ultra (Smith), Lancashire Hero (Lancashire), John Waterston (Cunningham), Alexander Meiklejohn (Kay), and George Lightbody (Headly). The second prize went to Mr. C. Turner, and the third to J. T. D. Llewelyn, Esq. Mr. Turner also staged a few first-class new Alpine Auriculas, from amongst which the following were singled out for 1st-class Certificates:—Yellow-centre: Gladiator, violet shaded; Mentor, dark purple shaded; J. T. D. Llewelyn, violet shaded; and Amazon, heavily shaded reddish-maroon. White-centre: Charles Darwin, plum shaded.

— **ADVERTING** to the INFLUENCE OF SELECTION ON PRECOOITY, M. Carrière mentions the fact that while the seedling Roses of fifty years ago took six or eight years to produce their flowers, it is not now unusual to see them flowering the first year. There is, however, great variation in this respect between seedlings derived even from the same fruit, some seedlings requiring four, and others from eight to twenty years to fruit. The Duchesse d'Angoulême Pear only began to produce fruit thirty years after it was raised from the seed.

— **AMONGST** rock plants the ALPINE PINKS are exceedingly interesting and showy. In addition to their other properties, they are, as observed in the *Field*, all thoroughly hardy. Formerly a much larger number of species were in cultivation, but, unfortunately, like many more good old plants, they have been lost. The undernoted list probably embraces the most choice, and in this, as in other cases, it is better to have selection rather than collection. As most of these are free seeders, stock can be increased rapidly in this way; and, like all rock plants, they can only be seen to advantage in large masses. They also strike freely from cuttings put into a cold frame in summer and autumn. They are most at home in a light, rich, sandy, well-drained soil, fully exposed to the sun. Those having no rock garden may grow them in a sunny border, and if it is raised above the surrounding soil it will suit them better. These dwarf pinks also look well grown in shallow pans in cold frames, and in this way they rank with the most choice Alpine plants for exhibition.

D. alpinus	D. dentosus	D. ramosissimus
D. arenarius	D. Fischeri	D. Simsii
D. atrorubens	D. fimbriatus	D. superbus
D. cæsius	D. glacialis	D. suavis
D. corsicus	D. neglectus	D. sylvestris
D. cruentus	D. petraeus	D. tymphrestus
D. deltoides	D. pungens	D. viscidus.

— **OUR** contemporary the *Journal des Roses* states that the MANETTI ROSE, so generally utilised as a stock for working roses upon, was raised from seeds obtained from Persia by M. Manetti at the Botanic Garden of Monza, Italy. In 1837 some plants were sent to Mr. T. Rivers, at Sawbridgeworth, by M. Crivelli, of Como, Italy; and it was introduced from England to France the 20th of March, 1840, by M. Portemar fils.

— THE new Marvel of Peru, *MIRABILIS MULTIFLORA*, is a strikingly beautiful tuberous-rooted perennial, flowering abundantly during the late summer months, and continuing in beauty till cut down by frosts. Like its congeners it branches freely, forming large bushy masses, and the numerous branches are each terminated by a cluster of buds which open in succession, so that when the sun shines brightly, the plant is aglow with bright purple colour. It has been but a few years in cultivation, and is yet but little known, though it deserves to be more widely cultivated. It is a native of California and New Mexico, and is consequently nearly hardy like the older species, requiring only the protection of the tuberous roots from frost and damp. We owe its introduction to Mr. Thompson, of Ipswich.

— IN reference to what are called DESSERT AND BAKING APPLES, we read the following in a contemporary:—The division of apples into eating and cooking sorts, while apparently natural enough, really covers a fallacy. The best eating apple is generally the best cooking apple. When a thing is good without the cook do without the cook; but when one wishes for cooked apples there is no need to take sour ones and then bathe them in sugar if we can find a fruit in which the good qualities are so gently mixed, so to say, that no sugar or other artificial mixture need be added to make a delicious dish. The true cooking apple is one that will do this, and I seldom find it except in the Blenheim Pippin when fresh, in the Newtown Pippin, Cox's Orange Pippin, and the Cranberry Pippin, an American sort. A kind that grows its own sugar and its own delicate flavouring is the best cooking apple.—(*Garden*.)

— AMONGST the finer hybrid Greenhouse varieties, *RHODODENDRON FORSTERIANUM* holds a high position. This hybrid was raised by Mr. Otto Forster from *R. Veitchii* fertilised with pollen of *R. Edgeworthii*. The flowers are of an exquisite lemon or primrose tinge, very large and scented, and inherit the ineffable delicacy of *R. Veitchii*, with more substance—in fact, they are more like those of a *Rhododendron* and less like those of an *Azalea*.

— AMONG the late Rev. J. G. Nelson's SEEDLING NARCISSI Mr. Burbidge mentions a most remarkable Daffodil of the *N. moschatum* bicolor group, named *Narcissus Gertrude Jekyll*. It has a fine bold and distinct flower, of a clear sulphur-yellow, stained or suffused with gamboge-yellow; the corona is 2 inches in length, also clear sulphur, with a deeper coloured rim. It has a beeswax-like odour, which suggests its being related to *N. moschatum*, but the perianth and coronet are of a firmer texture, indeed in form and size the flower is that of *N. bicolor Horsfieldii*, though the colour is very different. It is named *Gertrude Jekyll*, in compliment to a lover of hardy flowers.

— THE following plan of RENOVATING OLD BLACK CURRANT BUSHES is adopted by Mr. Gilbert in the gardens at Burghley, the seat of the Marquis of Exeter, as we learn from the *Journal of Horticulture*. The old currant bushes are made young again, it would seem, by a very simple process. A certain number of them are cut down yearly almost to the ground. They push

strong growths, and in a year or two the inferior produce is replaced by splendid fruit. Some bushes that at a glance appear four or five years old are, perhaps, five times that age—perhaps more. If the ground is not dug, but dressed with manure and soil annually, black currant bushes may be kept profitable for generations, as they bear cutting down about as well as Willows, and, like Willows, afterwards grow vigorously.

In Memoriam.

— CHARLES ROBERT DARWIN, Esq., died on April 19, at his residence, Down, near Beckenham, Kent, in his 74th year. He was born at Shrewsbury in 1809, and was educated at the Grammar School in that town, whence he proceeded to Edinburgh and afterwards to Cambridge, at which latter place he became a pupil of the late Professor Henslow, to whom and to Professor Sedgwick he owed much as regards the development of his scientific tendencies. Mr. Darwin's services as naturalist on board the *Beagle*, during its five years' voyage round the world, gave him, while still young, a place amongst the foremost of rising naturalists; but it was not till the appearance in 1859 of his *Origin of Species*, a work which has sufficed, in less than a quarter of a century, to revolutionise natural history, that he became known to the public at large. For him close personal observation and extensive research were not enough, but the most elaborate actual experiments were brought to bear upon his inquiries with a sagacity in conception and a patience in carrying out which have rarely been equalled and never surpassed. These manifold researches raised Darwin to the highest rank among naturalists.

— MR. THOMAS WOODHEAD died of Bright's disease at his residence, Shibden Head, Halifax, on April 30, at the age of 50 years. He had been a lover of flowers from childhood, and for twenty years he had been a grower of Auriculas, of which he possessed certainly one of the best collections in England, and in the blooming season he spent a great portion of his leisure among his flowers. He filled the position of manager of the Shibden Head Brewery Company at Halifax for a considerable time. Of late years he has raised numerous seedlings, a few of which have been seen at South Kensington. The collection is said to be rich in such fine varieties as George Lightbody, Smiling Beauty, Lancashire Hero, &c., as well as promising seedlings. In private life Mr. Woodhead was much esteemed, being one of Nature's noblemen.

— MR. THOMAS MELLOR, for many years a constant exhibitor at the Auricula and Tulip shows in Lancashire, died at his residence, Ashton-under-Lyne, on May 1, at the age of 60 years. He was a shoemaker by trade, but of late years had devoted himself almost entirely to floricultural pursuits, cultivating Auriculas, Polyanthus, Pinks, Ranunculuses, Tulips, Carnations, Picotees, &c. He was one of the last of the Pink growers in his district, and as much as thirty years ago was an exhibitor of these flowers at Middleton. His fine collection of Auriculas has, we hear, passed into the hands of Mr. Brockbank, of Didsbury. As a raiser he appears to have done but little, save with Auriculas, of which he is reported to have had a fine lot of promising seedlings. He was very upright in all his transactions as a florist, and is much mourned by those who had floricultural relations with him, as well as by his more intimate friends.



W. H. Fitch del.

Pelargoniums:
1. Mignonnette 2. Belle de Jour

Chromo. Stroobant, Ghent

NEW PELARGONIUMS.

[PLATE 565.]

THE lovers of Pelargoniums are indebted to M. Victor Lemoine, of Nancy, for the two distinct and handsome varieties figured in the accompanying plate. Their distinctness will be evident at a glance, and their beauty when well grown is equally pronounced.

MIGNONNETTE (fig. 1) is a seedling raised by M. Lemoine in 1877. It belongs to the class with undulated petals—Regal Pelargoniums as they are termed in this country—and was noticed as a novelty of merit at the Paris Universal Exhibition of 1878. It was shown from Chiswick at the meeting of the Floral Committee in July, 1881, and was then awarded a First-class Certificate. M. Lemoine describes it as producing regular flowers with undulated petals having goffered

edges; the colour a marbled carmine rose, with the upper petals blotched with maroon and the centre white.

BELLE DE JOUR (fig. 2) is also a seedling of M. Lemoine's. It is, as we learn, "a seedling of the variety named Lucie Lemoine crossed by the old double album plenum (Lady Victoria Ker), and was sent out in 1880 under its French name Belle de jour (*Convolvulus tricolor*) since its flowers resemble those of a double-flowered *Convolvulus*." The flowers are very pure white, broad, semi-double, and regularly shaped, like those of a *Convolvulus*, whence the name; they grow on stiff erect stems, and are very abundant, but as only a few trusses open at one time, it has a habit of continuous flowering which makes it very useful for cutting purposes.—T. MOORE.

TULIP SHOWS.

WE have this year had the privilege of assisting at two of the principal Tulip Shows of Lancashire and Yorkshire, namely, that of the Royal National Tulip Society held in the Botanical Gardens at Manchester on May 27th, and that of the Wakefield Amateur Tulip Society, held at the Brunswick Hotel, Wakefield—the forty-seventh annual show—on May 29th. The sight was one of much interest beyond that arising from the intrinsic beauty of the flowers. How little, comparatively, of the enthusiasm which seems to mark the northern florist, is met with in the south. Doubtless the very necessity of fighting with the elements on behalf of his floral pets which the northern man experiences, deepens his love and regard for them, and leads to all those gentle and genial attentions by which he deserves and usually secures success. We were particularly struck with this on being warmly welcomed to see the garden of Mr. G. Gill at Wakefield, where we found two long and crowded tulip beds in all their glory, the plants vigorous, and the blossoms as thick as buttercups in a meadow, forming a most enchanting and attractive picture. But over and beyond all this was to be noted the arrangement which witnessed a loving regard for the flowers—a love which we

understood had endured through at least four succeeding generations. Mr. Gill is by trade a shoemaker; at one corner of his garden plot—not a very large one—stands his cottage, and at the other an apartment in which his trade is carried on. Over against the window of this one-story workshop are the two principal beds of the magnificently grown tulips above referred to, and through this opening Mr. Gill, while pursuing his daily occupation, can feast his eyes on the beauty of his flowers, the long vista formed by the path between the two beds being exactly opposite to it. No doubt the progress of the plants, from their first appearance above ground till the consummation of their glorious inflorescence, is closely watched, while sole and upper are being welted together, and no doubt a rich reward of satisfaction is thus day by day secured, while the necessary sweat of the brow is securing the daily bread. What source of satisfaction could possibly be purer and more ennobling? How could labour be sweetened by more ravishing and dainty delight?

Turning to the Exhibitions above referred to, we must note that the Royal National Society's Show was not equal to that of last year, owing to uncongenial climatic conditions. The great change of temperature which took place during

the spring months did much damage to the flowers in many instances, the warm weather of February and March exciting the bulbs into growth, which was afterwards arrested by the succeeding cold, which checked the natural development of the flowers, and led to crumpled petals and imperfect markings, the latter being more especially noticeable in the case of feathered flowers when the colouring is laid on at the edges. Moreover, the Lancashire beds had, in many cases, suffered from the "tulip disease"—an insidious evil, which seems to prevent the protrusion of roots from the bulbs, while the leaf and stem pushes forth as usual at the first, and then dies away long before the flowering period is reached. Notwithstanding these drawbacks the show was very fairly filled, and had the advantage over previous years in one respect, namely, that the flowers (except in the pans) were set up in dark-coloured bottles, uniform in pattern, having a thin neck to receive the flower stalk, and a broad flat base to ensure their standing firmly on the tables.

The Yorkshire florists, judging by the appearance of their flowers and by the free and healthy growth observed at Wakefield in Mr. Gill's bed above referred to, and in that of Mr. R. Sharpley, which was equally fine, had not suffered materially either from the cold of spring or from the disease, and hence the exceedingly gay appearance presented by their beds and the well-filled tables of the exhibition room. For the same reason, doubtless, the Wakefield flowers were of larger size than many of those staged at Manchester.

ROYAL NATIONAL TULIP SOCIETY.

RECTIFIED TULIPS.

Class I. 12 dissimilar, 2 feathered and 2 flamed of each class.—1st, Mr. Samuel Barlow, Stakehill House, Castleton, with a stand containing some flowers of excellent quality, notwithstanding the ungenial spring, including Heroine, feathered rose; Adonis, flamed bybloemen; Sir Joseph Paxton, flamed bizarre; David Jackson, feathered bybloemen; Dr. Hardy, flamed bizarre; Annie McGregor, flamed rose; and Talisman, flamed bybloemen—a fine bloom, but too densely coloured; the other flowers were Garibaldi, Ashmole, Friar Tuck, Mabel, and Modesty. 2nd, Mr. D. Woolley, Stockport, whose best flowers were Madame St. Arnaud, feathered rose, very fine; Mabel, feathered rose; Sir J. Paxton, feathered bizarre; Sovereign, feathered bizarre; and Dr. Hardy, flamed bizarre; the others being too small. 3rd, Mr. H. Travis, Royton. 4th, Mr. R. Sharpley, Wakefield.

Class II. 6 dissimilar, 1 feathered and 1 flamed of each class.—1st, Mr. John Parkinson, Derby, whose best flowers were Sir J. Paxton, feathered bizarre, very fine; Charmer, feathered rose; Talisman, flamed bybloemen; Dr. Hardy, flamed bizarre. 2nd, Mr. Samuel Barlow, who had a magnificent Talisman, flamed bybloemen; Storer's No. 4, feathered bizarre; Mrs. Jackson, feathered bybloemen, with a very rich black feathering on a pure white ground. 3rd, Mr. H. Travis, who had good blooms of Masterpiece, feathered bizarre; and Mabel, flamed rose.

4th, Mr. R. Sharpley. 5th, Mr. J. Thurstan, Wolverhampton. 6th, Mr. D. Woolley. 7th, Mr. J. Wood, Royton.

Class III. 6 dissimilar, 1 feathered and 1 flamed of each class (for 10s. 6d. subs. only).—1st, Mr. H. Housley, Stockport, with Royal Sovereign, feathered bizarre; Madame St. Arnaud, flamed rose; Heroine, feathered rose; Sir J. Paxton, flamed bizarre; Duchess of Sutherland, flamed bybloemen; and Violet Aimable, feathered bybloemen. 2nd, Mr. E. H. Schofield, who staged a very fine Masterpiece, feathered bizarre.

Class IV. 3 feathered, 1 of each class.—1st, Mr. H. Housley, who staged Royal Sovereign, bizarre; Mabel, rose; and Mrs. Pickerell, bybloemen. 2nd, Mr. Thomas Parkinson, with Adonis, bybloemen; Heroine, rose; and Royal Sovereign, bizarre. 3rd, Mr. E. H. Schofield. 4th, Mr. H. Travis. 5th, Mr. D. Woolley. 6th, Mr. S. Barlow.

Class V. 3 flamed, 1 of each class.—1st, Mr. D. Woolley, who showed Triomphe Royale, rose; Sir J. Paxton, bizarre; and Princess Royal, bybloemen. 2nd, Mr. J. Thurstan, with a very fine Sir J. Paxton, bizarre; Lady Constance Gordon, rose; and Duchess of Sutherland, bybloemen. 3rd, Mr. H. Housley. 4th, Mr. J. Martlew. 5th, Mr. S. Barlow. 6th, Mr. E. H. Schofield.

Class VI. 2, 1 feathered and 1 flamed of any class (for maiden growers only). No competition.

Class VII. 2, 1 feathered and 1 flamed of any class.—1st, Mr. H. Housley. 2nd, Mr. T. Parkinson. 3rd, Mr. J. Martlew. 4th, Mr. H. Travis. 5th, Mr. T. Baker Leigh. 6th, Mr. E. H. Schofield.

Class VIII. Single Blooms: Feathered Bizarres.—1st, Mr. T. Parkinson, with an unknown variety. 2nd and 9th, Mr. T. Parkinson. 3rd, Mr. R. Sharpley. 4th, Mr. T. Anson. 5th, 7th, 8th, and 13th, Mr. J. Morris, Bedford Leigh. 6th, Mr. B. Simonite, Sheffield.

Feathered Roses.—1st, Mr. T. Parkinson, with Charmer. 2nd, Mr. B. Simonite. 3rd, Mr. H. Travis. 4th, Mr. D. Woolley. 5th, Mr. E. H. Schofield. 6th, Mr. H. Housley. 7th, Mr. E. Woolley. 8th, Mr. J. Morris. 9th, Mr. J. Martlew. *Feathered Bybloemens.*—1st, Mr. T. Parkinson, with Mrs. Pickerell. 2nd, 4th, and 6th, Mr. H. Housley. 3rd, Mr. J. Morris. 5th, Mr. T. Barker. 7th, Mr. T. Parkinson. 8th, Mr. H. Travis. 9th, Mr. E. H. Schofield. *Flamed Bizarres.*—1st, Mr. H. Housley, with Sir Joseph Paxton. 2nd, Mr. T. Parkinson. 3rd, Mr. J. Martlew. 4th, Mr. S. Barlow. 5th, Mr. E. H. Schofield. 6th, Mr. D. Woolley. 7th, Mr. E. H. Schofield. 8th, Mr. S. Barlow. 9th, Mr. H. Travis. 10th, Mr. S. Barlow. *Flamed Roses.*—1st, Mr. J. Thurstan, with Mabel. 2nd, Mr. S. Barlow. 3rd and 4th, Mr. D. Woolley. 5th, Mr. H. Travis. 6th and 7th, Mr. S. Barlow. 8th, Mr. T. Anson. 9th and 10th, Mr. J. H. Wood. *Flamed Bybloemens.*—1st, Mr. D. Woolley, with Lord Denman. 2nd, Mr. D. Woolley. 3rd, 4th, 5th, 6th, 7th, and 8th, Mr. S. Barlow. 9th, Mr. D. Woolley. 10th, Mr. J. Hague, Stockport.

Class IX. Best Feathered in the show.—Mr. H. Housley, with Royal Sovereign; it was, however, run hard by Mr. R. Sharpley's Lord Lilford. *Best Flamed.*—Mr. T. Parkinson, with Sir Joseph Paxton.

BREEDER TULIPS.

Class X. 6 dissimilar, 2 of each class.—These always form an attractive class, on account of their rich self colours. 1st, Mr. S. Barlow, with excellent flowers of Excelsior and Sir J. Paxton, bizzarres; Martin's 117 and Seedling, bybloemens; Lucretia and Lady Grosvenor, roses. 2nd, Mr. J. H. Wood, with Sulphur and Sir J. Paxton, bizzarres; Industry and Mabel, roses; Alice Gray and Surpass le Grand, bybloemens. 3rd, Mr. B. Simonite, with five good Seedlings, and Mrs. Barlow, rose. 4th, Mr. R.

Sharpley. 5th, Mr. J. Thurstan. 6th, Mr. J. Morris.

Class XI. 3 dissimilar, 1 of each class.—1st, Mr. B. Simonite, who staged some pretty Seedlings of good promise. 2nd, Mr. H. Housley. 3rd, Mr. S. Barlow. 4th, Mr. J. H. Wood. 5th, Mr. D. Woolley. 6th, Mr. R. Sharpley. 7th, Mr. E. H. Schofield. 8th, Mr. J. Thurstan.

Class XII. Single Blooms: Bizarres.—1st, Mr. J. H. Wood, with Sir J. Paxton. 2nd, 3rd, and 8th, Mr. R. Sharpley. 4th, Mr. D. Woolley. 5th and 6th, Mr. H. Travis. 7th, Mr. S. Barlow. *Roses.*—1st, Mr. H. Housley, with Lord Derby; 2nd and 3rd, Mr. Housley. 4th, Mr. J. H. Wood. 5th, Mr. S. Barlow. 6th, Mr. J. Martlew. 7th and 8th, Mr. E. H. Schofield. *Byblæmens.*—1st, Mr. Housley, with Philip I. 2nd, 5th, 6th, and 8th, Mr. S. Barlow. 3rd, 4th, and 7th, Mr. E. H. Schofield.

Class XIII. Best Breeder in the show.—Mr. J. H. Wood, with Sir Joseph Paxton.

Mr. Barlow again won the Cup, as the most successful exhibitor at the show.

WAKEFIELD AMATEUR TULIP SOCIETY.

This, as we have already remarked, was a most successful exhibition, and evidently excited considerable local interest. The prize list was as follows:—

RECTIFIED TULIPS.

Pan of 6 blooms.—1st, Mr. T. Gill, Crigglestone, with Majestic, Lord Denman, Wallis, Sir J. Paxton, Industry, and Lady Catherine Gordon. 2nd, Mr. G. Gill, Eastmoor, with Sir J. Paxton, Lady Lilford, Lady Denman, Maid of Orleans, Minerva, and Aglaia. 3rd, Mr. R. Sharpley, Silver Street, with Lord Lilford, Sir J. Paxton, Adonis, Lord Raglan, Mrs. Lea, and Fanny. 4th, Mr. C. Gill, Crigglestone, with Napoleon, Sir J. Paxton, Bessy, Lord Denman, Lady Denman, and Aglaia. 5th, Mr. T. Spurr, Vicarage Street, with John Brook (2), Vicar of Radford, Aglaia, Mrs. Gill, and Maid of Orleans. 6th, Mr. J. Hardwick, Eastmoor, with Lord Lilford, Sir J. Paxton, Seedling, Lord Denman, Industry, and Aglaia. 7th, Mr. J. Netherwood, Warrengate, with Vicar of Radford, Mrs. Barlow, Lord Lilford, Sir J. Paxton, and Sylvesta (2). 8th, Mr. G. Lumb, Kirkgate, with Masterpiece, Duke of Hamilton, George Hardwick, Vicar of Radford (2), and Aglaia. 9th, Mr. J. Steel, Eastmoor, with Lord Lilford, Vicar of Radford, Grace Darling, John Brook, Triumph Royal, and Lord Denman. 10th, Mr. E. Lister, Warrengate, with Willison's Queen, Heroine, Lord Lilford, Seedling, Sarah Headly, and Sir Joseph Paxton.

Single Blooms: Flamed Bizarre.—1st, Mr. R. J. Sharpley, with Sir Joseph Paxton. 2nd, with Mrs. Thornes. 3rd and 4th, Mr. C. Gill, with Sir Joseph Paxton. 5th, Mr. G. Lumb, with Sir J. Paxton. 6th and 7th, Mr. G. Gill, with Sir J. Paxton. 8th, Mr. T. Gill, with John Brook. *Flamed Byblæmen.*—1st and 2nd, Mr. T. Gill, with Lord Denman. 3rd, Mr. R. J. Sharpley, with Mrs. Jackson. 4th, Mr. T. Spurr, with Lord Denman. 5th, Mr. R. J. Sharpley, with Adonis. 6th, Mr. C. Gill, with Lord Denman. 7th, Mr. G. Gill, with Lord Denman, and 8th, with Mrs. Gill. *Flamed Rose.*—1st, Mr. J. Hardwick, with Mrs. Lea. 2nd and 3rd, Mr. T. Gill, with Aglaia. 4th, Mr. J. Netherwood, with Aglaia. 5th, Mr. G. Gill, with Vicar of Radford, and 6th with Aglaia. 7th, Mr. T. Spurr, with Aglaia. 8th, Mr. R. J. Sharpley, with Aglaia. *Feathered Bizarre.*—1st, Mr. R. J. Sharpley, with Lord Lilford. 2nd, Mr. T. Gill, with Masterpiece. 3rd, Mr. R. J. Sharpley, with George Hayward. 4th, Mr. C. Gill, with Masterpiece. 5th, Mr. T. Spurr, with Charles

the Tenth. 6th, Mr. T. Gill, with Sir J. Paxton. 7th, Mr. G. Gill, with Criterion, and 8th with Lord Lilford. *Feathered Byblæmen.*—1st, Mr. C. Gill, with Lady Denman. 2nd, Mr. T. Gill, with Lady Denman. 3rd, Mr. C. Gill, with Lady Denman. 4th, Mr. T. Gill, with Mrs. Gill. 5th, Mr. G. Gill, with Mrs. Gill. 6th, Mr. G. Gill, with Maid of Orleans. 7th, Mr. C. Lister, with Lady Denman. 8th, Mr. T. Spurr, with Lady Denman. *Feathered Roses.*—1st, Mr. R. J. Sharpley, with Industry. 2nd, A Friend, with Agnes Mellor. 3rd, Mr. G. Gill, with Heroine. 4th, Mr. G. Lumb, with Industry. 5th, Mr. G. Gill, with Heroine. 6th, Mr. J. Hardwick, unknown. 7th, Mr. J. Hardwick, with Heroine. 8th, Mr. R. J. Sharpley, with Mrs. Lea.

BREEDER TULIPS.

Pan of 6.—1st, Mr. R. J. Sharpley, with Queen of England, Lord F. Cavendish, George Hardwick, Sir J. Paxton, Mabel, and Geo. Hardwick's Seedling. 2nd, Mr. T. Gill, with Queen of England, Duchess of Sutherland, John Brook, Fancy, Orleans, and Catherine. 3rd, Mr. J. Nettleton, Warrengate, with Seedling (2), Mrs. Longbottom, Sir J. Paxton, John Bright, and Mrs. Jeffrey. 4th, Mr. G. Gill, with Sir J. Paxton, Louisa Brook, George Hardwick, John Brook, Catherine, and Mrs. Longbottom. 5th, Mr. E. Lister, Warrengate, with Mary Ellen Fawcett, Sir J. Paxton, Ethel, Mabel, Ariosto, and Mrs. Longbottom. 6th, Mr. J. Hardwick, Eastmoor, with Garibaldi, Dragonnette, Mrs. Jeffrey, Dr. Hardy, Dreadnought, and Mabel. 7th, Mr. T. Spurr, Vicarage Street, with Queen of England, Mary Ellen Fawcett, John Brook, Ariosto, Mabel, and Duchess of Sutherland. 8th, Mr. G. Lumb, with Seedling (2), Mabel, unknown, and Maid of Orleans.

Pan of 3.—1st, Mr. T. Spurr, with Mrs. Longbottom, Ethel, and John Brook. 2nd, Mr. R. J. Sharpley, with George Hardwick, Dr. Hardy, and Lady Grosvenor. 3rd, Mr. T. Gill, with Catherine, Maid of Orleans, and John Brook. 4th, Mr. E. Lister, with Lord F. Cavendish, Queen of England, and Duchess of Sutherland. 5th, Mr. J. Netherwood, with Lady Mary, Seedling, and John Bright. 6th, Mr. G. Gill, with Criterion, George Hardwick, and Industry. 7th, Mr. G. Lumb, with Mary Ellen Fawcett, Mabel, and Seedling. 8th, Mr. J. Steele, with Seedling (2), and Catherine. 9th, Mr. J. Hardwick, with Beauty of Brighouse, John Brook, and Mabel. 10th, Mr. C. Gill, with Mabel, Maid of Orleans, and John Brook.

Single Blooms: Bizarres.—1st, Mr. R. J. Sharpley, with Pilot; and 2nd, with Emperor Nicholas. 3rd, Mr. G. Gill, with Charles Darwin; and 4th, with John Brook. 5th, Mr. T. Gill, with Fancy. 6th and 7th, Mr. J. Hardwick, with John Brook. 8th, Mr. T. Gill, with John Brook. *Byblæmens.*—1st, Mr. G. Gill, with Maid of Orleans. 2nd and 3rd, Mr. R. J. Sharpley, with George Hardwick. 4th, Mr. E. Lister, with Ethel. 5th, Mr. J. Hardwick, with Van Hamburg. 6th, Mr. J. Netherwood, with Horatio. 7th, Mr. J. Steele, with Maid of Orleans. 8th, Mr. J. Netherwood, with Seedling. *Roses.*—1st, Mr. R. J. Sharpley, with Miss Hanson; and 2nd, with Lady Grosvenor. 3rd, Mr. E. Lister, with Catherine. 4th, Mr. G. Gill, with Catherine. 5th, Mr. J. Hardwick, with Miss Boot. 6th, Mr. T. Gill, with Lady Catherine Gordon; and 7th, with Catherine. 8th, Mr. E. Lister, with Nannie Gibson.

The premier flamed flower was Lord Denman, shown by Mr. T. Gill; the premier feathered, Lord Lilford, shown by Mr. R. J. Sharpley; and the premier breeder, John Brook, shown by Mr. T. Gill. Several prizes were also awarded to ferns shown by Mr. J. Steele, Mr. W. Meller, Mr. J. Netherwood, Mr. J. Hardwick, and Mr. G. Lumb.—T. MOORE.

KEEPING FRUIT.

AFTER many experiments in trying to lengthen out the period during which fruits of various kinds can be kept, I have proved again and again that the preparation of the crop during its growth has as much to do with keeping as anything. I believe that full exposure to sun and air, and the avoidance of crowding, together with ensuring that the roots of the tree (whatever it may be) are growing in healthy soil—not such as is “clogged and soured” with manure—have everything on their side to prompt cultivators to secure these as the primary agents in maturing fruits and well charging them with sugar. Shrivelling takes place much earlier with badly ripened fruit than with that which is thoroughly ripened.

Last autumn we placed a quantity of Stirling Castle Apples on a dry shelf. They were ready for use in September and October, but kept well through the winter, when many others which were considered late keepers had to be used up. The fruits of the Stirling Castle were kept well exposed to sun all through the season; they became unusually yellow when ripened. One fruit kept sound and good well into April, but when it did go it became black and soft in a few days. This apple, which I never saw fail in any season, should be grown very largely. Coming in well after Lord Suffield and on dwarfs, where they can be carefully exposed to sun, they can be had through a long period of the season. We have often referred to the keeping of Grapes, and thorough ripening has everything to do with keeping them. When thus prepared we have found them much sweeter and palatable in April than in December. The wood placed in water should never cause deterioration.—M. T., *Impney*.

ASPARAGUS PLUMOSUS.

FROM all appearance this *Asparagus* will, when it becomes better known, take a foremost place among decorative subjects, both as a pot plant and for the cut fronds, which may be used instead of ferns. For the latter purpose the branchlets are equally effective, if not more so, and they last much longer than maidenhair does after being cut.

The *Asparagus plumosus* is of easy and rapid growth. We plant it in shallow pans about 8 inches across, and set in a few small sticks, to draw some of the largest fronds from crowding the centre. When grown in this way it will be invaluable where single specimen plants for standing about the house are in request. What a fine effect *Gloxinias* and it, also a few plants of *Caladium Argyrifolium*, have when mixed. A very pretty picture can be produced by these three when well arranged. We find the plant to grow well in a mixture of peat and loam, with a good dash of sand and small pieces of charcoal; it must also have good drainage, as it appears to delight in plenty of moisture, which, however, must not become stagnant about the roots.—A. HENDERSON, *Thoresby*.

* * * To the foregoing remarks by Mr. Henderson, we add a figure of the plant, which has been kindly lent to us by Mr. Bull, of Chelsea. The plant was introduced by him from South Africa, and may be described as a slender growing evergreen species of scandent habit, and remarkably elegant character—an exceedingly handsome ornamental plant for the greenhouse and conservatory, while its pretty feathery fronds are extremely useful, as Mr. Henderson points out, for cutting to be used for decorative purposes. When used in this way, it will last for four or five weeks as green and fresh as when first placed in the vase. “W. K.,” in the *Journal of Horticulture* (3 SER., iv., 451), observes as to its propagation that “It was considered for a long time that the roots and seeds were the only means of propagating it. However, this is a fallacy; that it can and is propagated by cuttings has been proved beyond doubt, and any one who is in possession of a small frame with bottom heat can readily increase this *Asparagus*. My mode of propagating is very simple, and may be described thus:—I select the cuttings from what may be termed half-ripened shoots, removing the small branchlets with a heel about three or four inches long, and insert them in cocoa-nut fibre, which I have at the bottom of the propagating frame, sprinkle them with water, and keep the frame close till they have produced roots, which should be within four or five weeks. When rooted they should be placed singly in small 60-size pots, employing



ASPARAGUS PLUMOSUS.

rich sandy soil for the purpose. They will soon advance, and in a short time the first sucker-like shoot will be noticed pushing through the soil, which develops into a feathery spray, succeeded as the plant grows older by stronger shoots.

"Twelve months after the seed is sown,

provided the young plants have had liberal treatment, neat specimens should be obtained suitable for table decoration. With me it has proved a very valuable plant for table and indoor decoration: the graceful dark green sprays and elegant habit render it much admired. It is even a rival for *Adiantum*

cuneatum; for many as are the good qualities of that fern, one of its great failings is that it will not last long in a cut state, whilst *Asparagus plumosus* lasts for a considerable time. I have had sprays of it in water for four or five weeks, with gas burning in the room every night, and at the expiration of that time the sprays were nearly as fresh as when first cut. For bouquets it is charming.

"*Asparagus plumosus* may be described as a greenhouse plant. It thrives well either in a stove or greenhouse—the higher the temperature the more rapid and tender the growth; plants which have been grown in a greenhouse are slightly more sturdy than the others."

EUPHORBIA FULGENS.

THE *Euphorbia fulgens*, called also *E. jacquiniæflora*, is one of the very best winter-flowering stove plants we possess. It was introduced to this country over forty years ago, and its popularity at the present day is sufficient evidence of its merits. Nor is this surprising, for amongst small flowered plants that bloom during the winter time, its brilliant scarlet flowers are unequalled for their intensity of colour. They are produced in clusters on short stalks, springing from the base of the elegant lanceolate leaves over a considerable portion of the preceding summer's growth, which thus forms continuous wreath-like combinations of flowers and foliage, unsurpassed by any plant in cultivation. Not only is this *Euphorbia* a handsome object when grown in a pot, but it is even more so when planted out so as to cover a wall or pillar, for which purpose it is well adapted. For use in arrangements of cut flowers it is most effective, its intense colour contrasting with almost anything else.

Being a native of Mexico it requires considerable warmth to grow and flower it. It is easily grown, but, being a spare rooter, it must never be over-potted, or if planted out be allowed too much root room, for when the roots have more soil about them than they can fully occupy, they are liable to rot if they get at all over-wet. It strikes readily from cuttings, but there is this peculiarity about the plant, that if the cuttings are taken off in the ordinary way, that is, by selecting the points of the

young growth alone, very few will root, their sappy nature causing them to rot; but if the following course is followed not many will fail to grow. After the plants have done blooming, about the beginning of March, cut the preceding summer's shoots back to within eight or ten inches of where they sprung from and place the plants in a temperature of 65° in the night, and proportionately higher by day, tolerably near the glass, so that the young growth will come stout and firm, not giving more water to the soil than will keep it moderately moist; in the course of a fortnight the plants will break, and as soon as the young shoots are about six inches long take them off with a heel of the old wood, insert them five or six together in four- or five-inch pots, drained and half-filled with sandy soil, the remainder all sand, which is to be kept moist and covered with a propagating glass. If a little bottom heat can be given without keeping the cuttings too dark or far from the glass, it will answer, or they will root without bottom heat if the temperature is equal to, or a little above, that wherein the cuttings have been grown; as soon as well rooted, put them singly in three-inch pots, using good loam with a little rotten manure, and as much sand as will keep the whole porous; pot firmly, and keep them close for a few days until growth has commenced, after which inure them to the atmosphere of the house and stand them near the glass.

When they have grown a few inches pinch off the points of the shoots so as to induce them to break out. The plant is a spare-branching erect grower, and will not assume a bush-like form. Give more heat as the season advances; they will bear 70° in the night, and 80° or 85° by day. Towards the end of May move them into pots about seven inches diameter, which will be large enough for them to grow and bloom in the first year. When fairly established, which they should be by the beginning of July, take off the points of the shoots again, and when they have grown and the soil has got moderately full of roots give a little manure water weekly through the summer. A pit where they can receive the requisite heat and be kept near the glass will answer better than a more lofty structure. Admit enough air during the day all through the

summer to solidify the growth as it is being made; they will need no shade except in extremely hot bright weather. A slight moistening overhead with the syringe at the time of closing the house during the summer months will assist growth, but this should be discontinued in the autumn, and more air given, as also less water to the roots when the weather becomes cooler, with a reduction in the temperature both day and night. Such portions of the plants as are required to bloom first should from the middle of October be kept in an ordinary stove temperature, say 62° to 68° in the night, and higher according to the weather by day.

So treated they will flower by Christmas or soon after. Where it can be done the plants should be so elevated during the advancing stages of the bloom as to admit of the shoots being spread out so that their upper portion will lay parallel with the roof glass within a few inches. When managed in this way the flowers will attain a brilliancy of colour that they never have when treated otherwise, and in a cut state they will keep up without flagging very much better than when grown at the usual distance from the glass. The plants intended to bloom later may be kept cooler for a time, but must not be allowed to remain where too cold; 55° is low enough. When they have flowered, keep them drier at the root until the time comes for preparing them to furnish a supply of cuttings in the way already described, after which they may be allowed to break again and have a portion of the old soil removed, and then be put into nine- or ten-inch pots; plants so treated will last for years. Where this *Euphorbia* is intended to be planted out, one- or two-year old examples should be chosen, treating them as to soil and in other matters in a way corresponding to the details above given for pot-culture.—T. BAINES, *Southgate*.

PEACHES FOR THE NORTH.

THE subjoined remarks on the varieties of Peaches found suitable to the northern climate of Danzig, published last year in the *Berlin Monatsschrift*, should supply some useful hints as to the selection of varieties applicable to the less favoured localities of our own country:—

“When I was living in the milder climates

of Germany, Switzerland, and Belgium, I entertained with many others the preconceived idea that the culture of the Peach-tree in the north was practicable only for such persons as could indulge in Peach-houses and covered walls; but since I have resided here I have changed my opinion in this matter, as I find that both in large and small gardens the Peach may be successfully grown on sunny walls and screens. The proper choice of kinds is of course a chief condition of success. In the spring of 1877 a new set of Peach-trees, mostly one- or two-year old palmettes, was planted here against a southerly-situated wall; some of these have already borne frequently, and I wish to point out the most commendable amongst them, arranging them according to their ripening season.

“*PRÉCOCE DE HALE*.—We obtained this North American kind from France under the name of *Précoce de Halle*, but I regard it as synonymous with *Hale's Early*, and therefore believe *Précoce de Hale* is the correct name. The fruits ripened here from August 15 to August 20, while in warmer climates they ripen from the middle to the end of July; they were large, broadly round, dark rose-coloured on the sunny side, and of superior flavour.

“*PRÉCOCE DE SAVOIE* ripened from August 28 to August 31; the fruit was similar to that of the former, only somewhat more oval in form, and like it was of very good quality.

“*POURPRÉE HÂTIVE* ripened its fruits about the middle of September; they were large, somewhat oval-shaped, and of a deep purple colour on the sunny side. It is a superior kind for a northern climate.

“*GROSSE MIGNONNE HÂTIVE*, which ripened from the beginning to the middle of September, is known as a variety of superior quality, and in the north is to be preferred to the *Grosse Mignonne* itself on account of its earlier maturity.

“*WILLERMOZ*.—The fruits of this variety were medium-sized, of a beautiful red colour on the sunny side, very full of juice, and well-flavoured; they ripened here about the middle of September. [This appears to be synonymous with the *Early Crawford*.]

“*DOPPELTE MONTAGNE* [Double Montagne] ripened from September 10 to September 20; the fruits were of medium-size, roundish, and of a pale red colour. It is one of the best kinds for our climate, bearing copiously, and being tolerably winter-hardy. In Holland it has for many years been grown in large numbers especially for export northwards.

“*MADAME GAUJARD*, figured in *Lauche's*

Deutsche Pomologie is a late sort, and ripened here from the beginning to the middle of October; it is one of the most commendable as regards the quality of the fruit, as well as for its unsurpassed fertility. One tree, which was planted in the spring of 1877 as a one-year old palmette, has borne from the first year, and the fruits, which ripened well, were rather large, roundish, coloured purplish-red on the sunny side, and of excellent flavour. As it is rather late in ripening, I should advise to plant this sort in the warmest position.

"As regards the most suitable form for the Peach-tree, and that best adapted for its winter protection, which is necessary in this climate, I prefer the palmette to any other. . . . In winter . . . the stems and the lower strong boughs are surrounded with juniper branches, or in want of these with fine thorns of wild roses, in order to protect the bark against damage by mice."—R. MÜLLER, *Praust, near Danzig.*

THE FIG-TREE.

BOOKS on Fruit-trees show us how to get two crops of Figs a year in a good season; and tell us that in an ordinary season there should be no difficulty in getting one crop in the year. On comparing notes on this subject with my namesake of fruit notoriety,* he states that he has gathered two dozen good Figs from a plant in a 24-sized pot. The idea of its being in a pot, tells that it has been well wintered in some shed or under glass. Before the days of cheap glass we had recourse to dry bracken and straw to protect our Figs from frost and wet; and after all nothing was more uncertain than a crop of Figs. At Lord Boston's garden on the banks of the Thames, I saw in an old walled garden a standard Fig-tree in full bearing, and examples of Figs in pots are to be seen everywhere in true orchard-house fashion; but this is not all, for when the greatest bearers have done their best, and a good crop has been got in, it will have taken a hot summer and a slice of autumn into the bargain to get good dessert fruit from any Figs out of doors. Therefore we may drop the fern and straw and take to the glass-house for protection for Fig-trees.

There is no need to confine the Fig-trees to pots, although pots of large size may be used. I need scarcely remark that the pots will confine the plants to the form of low bushes;

* "Forsyth on Fruit Trees."

and whoever has been able to exhibit Vines in pots will have no difficulty to manage Figs. Forsyth gives details as to how the Fig may be pruned by cutting to the quick misplaced shoots, and also those where the milk exuded showing wounds, all of which should be plastered or cauterised, either with dry powder or by the use of a hot iron.

Figs cannot usually ripen in our climate, and therefore they are seldom seen in market, and are scarcely known in the trade. The small Figs, little larger than buttons on a livery coat, want only winter protection, and a warm summer, to bring them to maturity; but the larger kinds require exotic treatment to grow them well.

The Fig has been in England for three or four hundred years, and has got to be well known; and wherever the Jew or the Gentile have set foot the Fig-tree will be found. Not only are Figs used as food, but as salve or medicine, for in Holy Writ we read of the bunch of Figs being laid upon a sore, and it healed.

The Fig-tree is easily propagated, and never fails to push out its green fruit; therefore it is one of the best plants for beginners to practise on. No one should attempt to grow Figs who has not the leisure and the skill to do them justice, for root and branch should be indoors in hard weather; and where the owner is either unable or unwilling to grapple with the cost and care of orchard-house Figs, he has no business to trifle with the culture of this fine old plant. The shade and shelter of the rambling Vine, and stiff shoots of the Fig-tree, are idioms indicative of perfect happiness, represented by sitting under one's own Vine and Fig-tree.—ALEX. FORSYTH, *Salford.*

CAMPANULA PYRAMIDALIS.

THIS plant is admirably suited for pot culture, and is deserving of more attention than is commonly bestowed upon it. Although hardy enough to withstand the frost of ordinary winters, and to flower freely in the open border, it is nevertheless worthy of better treatment, and is certain to fully repay any extra attention which may be bestowed upon it by cultivators, by yielding freely its beautiful spire-like masses, 5 or 6 feet in height, of blue and white flowers, which continue for a considerable length of time in good condition.



W. H. Fitch, Del.

Chromo F. Stroobant, Chent.

Apple Sops in Wine.

The plants of this *Campanula* are most useful for breaking up the monotonous appearance of trimly arranged collections of plants on greenhouse stages and in conservatories, and they are, moreover, well adapted for placing in lobbies, vestibules, or verandahs, where they take little room, and make a gay appearance. As soon as the plants are seen to be showing the flower stems, a portion of the stock may be put into a cool shaded place so as to keep up a succession for a longer period.

To ensure a good display every season it is necessary to sow seed every year in April or May, which I have found to be a suitable time. As soon as the plants are large enough, they should be potted off singly into small pots and grown on in cold pits or frames. These should be shifted into 8-inch pots in the following spring, for the second year's growth; plunge the pot well down in ashes in the frames or pits where they are to winter, and they will flower freely the third year. A good deep surface dressing should be given when they begin to throw up their flower stems, and they must be fed liberally with manure-water until they have nearly arrived at the flowering stage. It is best to discard the plants as soon as they have flowered, and to depend only on the successional ones for the following season.—J. WEBSTER, *Gordon Castle*.

APPLE, SOPS IN WINE.

[PLATE 566.]

THIS is an old English Apple which at one time seems to have been pretty generally cultivated, but is now seldom to be met with, which is to be regretted, as it is singularly beautiful in appearance, and altogether remarkable in the reddish flesh, which gives it the appearance of having been sopped in red wine; hence the name "Sops in Wine," or "Sops of Wine," as it is sometimes given. Apart from its merits as a dessert or kitchen fruit—and it may be used for either—it is almost worthy of a place as an ornamental tree. What more beautiful than a tree laden with these glorious red fruits? While for mixing with other sorts for dessert it is charming. The surprise created on cutting a fruit is most amusing.

The fruit may be described as being below

medium size, roundish, with a very even surface, and regular in form and outline. *Eye* small. *Stalk* slender. *Skin* clear greenish-yellow on the shaded portions, but wherever exposed bright red, sometimes almost black, and covered with a thick heavy bloom, which seems to increase the longer the fruit is kept. *Flesh* white, much sopped with bright red, tender, sweetish, but with no particular flavour. It is in season from October to January.—A. F. BARRON.

REGISTER OF NOVELTIES.

NEW PLANTS.

ADIANTUM BOURNEI, *Hort.*—A garden variety of Maidenhair Fern remarkable for its dense triangular fronds on long stipites; in the way of *A. Pacottii*, but less refined in its growth; 1st-class Certificate R.H.S., May 23; shown by Mr. Smith, gardener to C. W. Bourne, Esq., Eltham.

ADIANTUM DOLABRIFORME, *Hooker.*—An elegant pinnate stove fern, often confounded with *A. lunulatum*, from which it differs in being of evergreen habit, on which account it is greatly to be preferred; it forms a good basket fern of the smaller type, with elongated proliferous fronds and dolabriform pinnules; 1st-class Certificate R.H.S., May 23. Brazil.—B. S. Williams.

ADIANTUM LEGRANDII, *Hort.*—A remarkably pretty garden variety, of dwarf habit, with small triangular fronds, very densely set with small overlapping pinnules; it is probably a congested form of *A. cuneatum*; 1st-class Certificate R.H.S., June 13.—Veitch & Sons.

ADIANTUM PACOTTII, *Hort.*—A charming little Maidenhair Fern, growing only four to six inches high, the fronds elongate, triangular, tripinnate, the pinnae and pinnules densely set so as to be overlapping, and the pinnules themselves broadly cuneate and deeply cleft so as to resemble those of *A. excisum*, to which it appears most nearly related; 1st-class Certificate R.H.S., April, 1882.—W. Bull.

ÆRIDES FORMOSUM, *Hort.*—A very handsome hybrid epiphyte, supposed to have been bred between *A. Larpentæ* and *A. odoratum*, resembling the latter in growth; the flowers grow in graceful pendent spikes, and are white spotted, the trifid lip being beautifully coloured with amethyst; 1st-class Certificate R.H.S., June 13.—Veitch & Sons.

ATHYRIUM FILIX-FÆMINA LACINIATO-ACROCLADON, *Stansf.*—A beautiful dwarf tufted crispy Lady Fern, a seedling from the variety *acrocladon*, which it in some degree resembles, but the beautiful hair-like setæ of that form are here exaggerated into profound horn-like lacinations.—F. W. & H. Stansfield.

ATHYRIUM FILIX-FÆMINA MAGNICAPITATUM, *Stansf.*—A charming dwarf tufted crispy Lady Fern raised from *A. f. f. acrocladon*. The stipes is occasionally branched; the rachis is branched half-way up the fronds; the lower pinnules are cruciate, and the upper half of the frond becomes expanded into a crested head frequently 9 inches in diameter. The bristle-like projections from the ultimate divisions are not so conspicuous as in its parent.—F. W. & H. Stansfield.

ATHYRIUM FILIX-FÆMINA RAMOSISSIMUM FIMBRIATUM, *Stansf.*—A very handsome much branched Lady Fern, larger growing than its parent *acrocladon*; the fronds are so much branched as to

become complicated into an intricate series of ramifications, which spring from both stipes and rachis, but are not really crested; the bristly projections of acrocladon are strongly developed, and give the fronds a beautifully fringed appearance.—F. W. & H. Stansfield.

BLECHNUM SPICANT OBOVATUM, *Stansf.*—A new and very curious form of Hard Fern, found by the late Mr. G. Brown in the island of St. Michael's, Azores. The outline of the frond is normal, but the pinnae are very much contracted at the base, so that they take a distinctly obovate form.—F. W. & H. Stansfield.

BOMAREA FRONDEA, *Masters (Gard. Chron., N. S., xvii., 668, fig. 102).*—A greenhouse climber of remarkable beauty, belonging to the group of scandent *Alströmerias*. It has smooth stems, lanceolate acuminate leaves, the uppermost of which are crowded and deflexed, and terminal many-flowered umbellate cymes of yellow flowers splashed with orange, the larger inner segments of which are pale yellow with numerous purple dots. Bogota.—Shuttleworth & Carder.

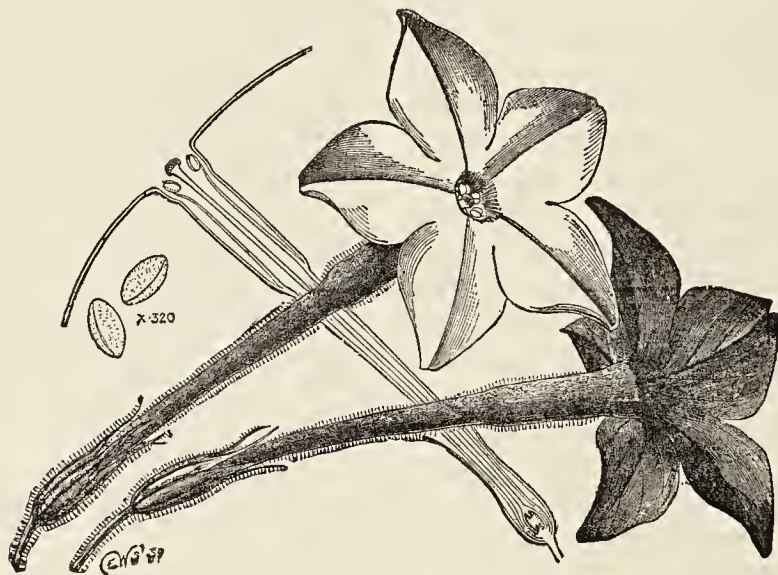
pinnales boldly crested in a very symmetrical manner.—F. W. & H. Stansfield.

LAVATERA ARBOREA VARIEGATA, *Hort. (Journ. Hort., N. S., ii., 466).*—A very fine form of the Tree Mallow, the leaves much variegated with white; this is likely to make a good plant for a back line in the mixed border, and to match well with *Delphiniums*, *Dahlias*, &c.; 1st-class Certificate R.H.S., May 23.—T. Smith.

LILIUM ELEGANS ROBUSTUM.—A very handsome and robust hardy lily, the flowers large, deep orange, marked all over with small spots of deep brown, which have a distinct and pretty effect; 1st-class Certificate R.H.S., June 13.—T. S. Ware.

MASDEVALLIA HARRYANA VERSICOLOR, *Moore (Gard. Chron., N. S., xvi., 306).*—Under the name of *M. Harryana striata* was shown this beautiful variety, first noticed in the place above quoted, and remarkable for its rich magenta colour, margined or otherwise irregularly marked in a varying manner with intense rich maroon-crimson; it is a very handsome free-blooming form.—Sir T. Lawrence.

MASDEVALLIA VEITCHII GRANDIFLORA, *Hort.*—



NICOTIANA AFFINIS (HALF NATURAL SIZE).

CATTLEYA GIGAS BURFORDIENSIS, *Hort.*—A grand variety of one of the finest of the *Cattleyas*, considerably larger than the type in all its parts and more richly coloured; the sepals and petals rich rosy purple, and the lip 3 inches across, of an intense amethyst, lighter towards the edges which are beautifully crisped; 1st-class Certificate R.H.S., June 13.—Sir T. Lawrence.

HYDRANGEA JAPONICA TRICOLOR.—This is a form of the well-known variegated *Hydrangea*, but with the leaves handsomely variegated with white and pale green, and conspicuously edged with yellow; 1st-class Certificate R.H.S., May 23.—C. Lee & Son.

IMPATIENS SULTANI, *Hook. f.*—A soft stemmed stove plant related to *I. Walkeri* and *platypetala*, introduced amongst soil from Zanzibar. It is dwarf and compact in habit, with smallish pale green lanceolate leaves, and long-spurred flat flowers about 2 inches across, of a brilliant rosy-scarlet, produced freely from the upper axils.—Kew.

LASTREA DILATATA FOLIOSO-CRISTATA BROWNII, *Moore*.—This is by far the handsomest of the crested forms of *L. dilatata*. It was found in the island of St. Michael's, Azores, by Mr. Brown, after whom it is named. The fronds are normal in outline, thin but firm in texture, and having the apex of the frond, and the apices of all the pinnae, and of the larger

A wonderfully fine form of this showy species, with beautifully coloured flowers, nearly twice the size of those usually met with; 1st-class Certificate R.H.S., May 23.—C. Dorman.

NEPENTHES MASTERSIANA, *Hort. (Gard. Chron., N. S., xvi., 749, fig. 148).*—A very handsome and vigorous growing seedling from *N. sanguinea*, producing pitchers freely in the dwarf state, the pitchers about 8 inches in length and of a deep sanguineous red; 1st-class Certificate R.H.S., June 13.—Veitch & Sons.

NICOTIANA AFFINIS, *Moore (Gard. Chron., N. S., xvi., 181, fig. 31).*—A charming half-hardy perennial, which lives through the winter in a greenhouse; and continues flowering throughout the summer. It grows 2–3 feet high, with ovate-obtuse leaves narrowed into a stem-clasping winged petiole. The flowers grow successively on the upper part of the branching stems, and are deliciously scented especially in the evening; they have a hairy tube $3\frac{1}{4}$ inches long, with a spreading limb of five segments, the two upper of which are shorter than the others, the mouth of the tube projecting on the upper and sloping away on the lower side; the flowers are white inside tinged with brownish purple exteriorly. The history of this plant is obscure, but it was brought into notice by W. H. Cullingford, Esq., of Kensington. Its beauty and its night-scented property

make it a good conservatory pot plant, and it flowers freely in spring if kept gently growing on during winter. The plant may be increased by cuttings, of the side shoots while young, and also by root cuttings as we learn from Mr. Cullingford.

ODONTOGLOSSUM ALEXANDRE GIGANTEUM, *Warner*.—A very large-flowered variety with blossoms $5\frac{1}{2}$ inches across, the sepals and petals white, broad and beautifully crisped, and the lip tinged with yellow; 1st-class Certificate R.H.S., May 23.—R. Warner.

ODONTOGLOSSUM VEXILLARIUM COBBIANUM, *Hort*.—A lovely variety of this choice Orchid, in which the upper portion of the flower is of the usual deep rosy pink, and the large expanded lip is of a pure white; 1st-class Certificate R.H.S., June 13.—W. Cobb.

ONCIDIUM LAMELLIGERUM, *Rehb. f. (Gard. Chron., N.S., vi., 808)*.—A fine Oncid from Ecuador, in the way of *O. macranthum* and *O. serratum*; the upper sepal is stalked, reniform, deep brown bordered with yellow; the lateral ones are also stalked, oblong, unequal at the base, of a clear rich yellow, the petals are crispy, and the lip trifid with three lamellæ; 1st-class Certificate R.H.S., May 23.—C. Dorman.

RHODODENDRON (JASMINIFLORUM) BALSAMIFLORUM, *Hort. Veitch*.—A double-flowered hybrid of the jasminifloro-javanicum type; the flowers very full, double, of beautiful flesh pink colour; a great and valuable novelty; 1st-class Certificate R.H.S., June 13.—Veitch & Sons.

SARRACENIA PORPHYRONEURA, *Hort. Veitch*.—A pretty dwarf pitcher plant, in which the pitchers are erect with large circular lids, these as well as the upper part of the pitcher itself being traversed by purple veins.—Veitch & Sons.

SPIRGULA PILIFERA AUREA.—A golden-foliaged form of this useful carpet plant, which proves very effective in the flower garden; 1st-class Certificate R.H.S., May 23.—R. Dean.

STATICE FLORIBUNDA.—A fine greenhouse subshrubby plant in the way of *S. profusa*, bearing immense heads of violet-blue flowers; it promises to make a rare exhibition plant, being higher coloured, and more profuse than the allied varieties; 1st-class Certificate R.H.S., May 23.—C. Lee & Son.

TILLANDSIA FURSTENBERGII, *Morren*.—An acaulescent stove Bromeliad, with tufted glaucous linear-lorate finely-toothed leaves, dilated at the base, and erect flower spikes furnished with lance-shaped rosy bracts dusted over with whitish meal.—Herr Kirckhoff.

TRICHOPILIA BACKHOUSIANA, *Hort*.—A charming Orchid with something the appearance of *T. snavis alba*, but distinct; the flowers are large, abundantly produced, pure white, and very lovely.—C. Dorman.

VERONICA HULKEANA.—A beautiful shrubby greenhouse species, with large branched panicles of pale lilac-blue flowers, and very useful for decorative purposes; 1st-class Certificate R.H.S., May 23. New Zealand.—J. Douglas.

ZYGOPETALUM EXPANSUM, *Hort*.—A handsome species, with narrow grassy oblong-ligulate elongate leaves, and long spikes of showy flowers, of which the sepals and petals are greenish, and the lip broad, of a deep purple. This does not appear to be the plant described under this name by Reichenbach, which is said to have the lip green and fringed; 1st-class Certificate R.H.S., June 13.—Sir T. Lawrence.

NEW FLOWERS.

BEGONIAS.—*Ball of Fire*: a very fine single form of the tuberous-rooted section, the flowers of large size and of a brilliant orange scarlet colour, extra fine; 1st-class Certificate R.H.S., May 23. *Hon. and Rev. J. T. Boscawen*: a grand single-flowered variety, of good habit, the flowers large and perfect in form, and of a deep glowing crimson colour; 1st-class

Certificate R.H.S., June 13.—Both shown by J. Laing & Co.

BEGONIA (DISCOLOR REX).—Some very pretty hybrids of this cross have been raised by M. Moens, the following being selected from a collection which last year gained for him a silver medal at the Liège exhibition:—*Director Crépin*: leaves elongate acuminate, silvery white ground, with central markings of shaded emerald green, and a reddish brown star, the same colour being repeated on the edge of the leaf. *Director C. v. Effner*: leaves large, of a very dark reddish-brown green, marked with numerous white spots. *M. J. Bonhert*: leaves large, cordiform, of a bright pearly ground colour, with a central star, and broad margin of bronzy green. *Madame Auguste Van Geert*: in this the discolor type predominates; leaves silvery white, with the carmine rose of the under surface penetrating as a soft rose, the furrows of the principal veins being sprinkled with bronzy-green markings. *Madame Pfitzer*: leaves pale coppery grey, with a zone of large pearly white spots, the rest of the surface minutely dotted with white. *Madame Prosper Dommer*: dwarf, the leaves of a shining pearly white, starred and veined with blackish green; grows readily in the open ground.

CARNATION (PERPETUAL), *Charles Page*.—An excellent profuse blooming variety, with very bright rich crimson flowers, of good form and quite full; 1st-class Certificate R.H.S., June 13.—G. Duffield.

CARNATIONS.—*Crimson Souvenir de la Malmaison*: a beautiful decorative variety, of very free habit, and producing large massive flowers nearly four inches across, of a lively crimson hue with a flush of rose, the back of the petals being of a deep pinkish rose, very fragrant. *Red Souvenir de la Malmaison*: similar to the foregoing, but of a lighter shade of reddish crimson. Both are valuable for conservatory ornamentation.—Kelway & Son.

GLOXINIAS.—*Cordelia*: a beautiful spotted variety, plentifully marked with small bright purple spots on a pale ground and margined with white. *Garibaldi*: a very rich fiery-crimson variety, having an unusual depth of colour and of fine form, one of the erect-flowered section; 1st-class Certificate R.H.S., June 13. *Robin Hood*: a high-coloured variety, of a rich deep crimson hue, the lobes margined with a paler colour; very fine and attractive; one of the erect-flowered section; 1st-class Certificate R.H.S., June 13.—All from Messrs. Veitch & Sons.

LOBELIA, *pumila Ingrami*.—A variety of dwarf close habit, blooming abundantly in dense masses; the flowers are pure white; 1st-class Certificate R.H.S., June 13.—Wood & Ingram.

PANSIES (BEDDING).—*Black Morocco*: a very dark, almost black purple of velvety texture, with a deep orange-yellow eye; a very richly-coloured self-flower. *Blue Dove*: a taking flower, with the upper petals reddish-purple, the lower one violet-blue with a smallish dark blotch, the very small eye yellow. *Bronze Horse*: a peculiar bronzy hue, very distinct, the dark eye surrounded by a small portion of yellow, separating it from the bronze. *Eyebright*: purple, the upper petals a shade paler than the lower, with a small bright yellow eye. *Goldworth*: a deep golden yellow, with medium-sized dark chestnut maroon eye.—All from Mr. W. Caudwell, Wantage, and all bright-looking and effective flowers.

PELARGONIUM (DECORATIVE), *Gold Mine*.—One of the free-flowering vigorous-growing sorts now known as decorative varieties; the flowers are large and of good form, bright vermilion-scarlet, with white centre and dark blotch on the upper petals; 1st-class Certificate R.H.S., June 13.—J. & J. Hayes.

PELARGONIUMS (IVY-LEAVED).—*Comtesse Horace de Choiseul*: one of the finest and most distinct varieties; the flowers are large, fully double, and of

a deep rosy-pink colour; 1st-class Certificate R.H.S., June 13.—Victor Lemoine. *Eurydice*: a double-flowered variety, with large soft rosy-pink flowers, full and handsome; good habit; 1st-class Certificate R.H.S., May 23.—H. Cannell & Sons. *Masterpiece*: a very fine single-flowered variety, magenta-pink flushed with orange, fine pip and truss; a true hybrid ivy-leaved variety, being a seedling from a high-coloured sport from St. George; 1st-class Certificate R.H.S., June 13.—J. George.

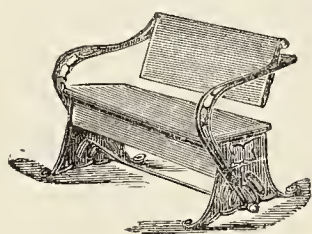
PELARGONIUM (SHOW), *Gratitude*.—Dark upper petals, with distinct margin of lilac; lilac lower petals, slightly blotched with crimson; very fine form; an improvement on Blue Boy; 1st-class Certificate R.H.S., June 13.—G. Smith.

ROSE, *Reine Marie Henriette*.—A charming climbing Tea-scented variety, with large and full globular soft pink flowers, crimson-lake when half open; a good addition to this class; also known as the Red Gloire de Dijon; 1st-class Certificate R.H.S., May 23.—R. T. Veitch.

VIOLA, *Champion*.—A creamy white-flowered variety, of dwarf and compact growth; the eyes rayed with dark lines; dwarf and free-blooming; 1st-class Certificate R.H.S., June 13.—Heath & Son.

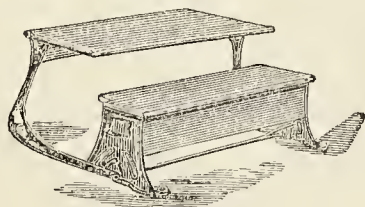
NEW APPLIANCES.

MEAD'S PATENT REPLEX GARDEN SEAT AND TABLE.—Combinations are usually ingenious, but not always serviceable; as an article arranged to serve two different purposes is often incomplete for either singly. In the case of this seat and table these two useful and necessary articles are well and easily combined, without straining to effect one at the expense of the other. The large arms of malleable



GARDEN SEAT.

iron, of a neat ornamental pattern, work on pivots in the end pieces in such a way as to fall down easily and form standards for the attached back board, which, by merely turning over, forms a strong firm table for coffee or tea at "5 o'clock," or whenever desirable. It can as instantly be changed back, no



GARDEN SEAT AND TABLE.

bolts, pins, or screws being used. The back, though straight, is placed at such an angle as to be most comfortable, while the seat forms, in addition, a commodious and useful locker box, in which Bats, Balls, Lawn Tennis Sets, Garden Tools, Quoits, &c., can be stowed away; or if standing in a lobby or entrance hall, Gloves, Gaiters, Rugs, Riding Whips, &c., can be put in it. One advantage in being able to reverse the back is that the occupier can use the seat to sit on either way—often desirable in strong sunshine or wind. They are made of Best Pitch Pine, are also

fitted with awnings, and a special pattern is made with an extra back rail, when the ordinary back is in use as a table.—Warhurst.

NEW BOOKS, ETC.

The GARDENERS' CHRONICLE (May 20—June 17) describes the following novelties:—*Bomarea frondea*, Mast. (p. 668, fig. 102), noticed at page 106. *Aërides suavisimum*, Lindl. (p. 668), a rare species now seldom seen, grown to a height of 4 feet, bearing five spikes at one time.—Dr. Paterson. *Crinum Northianum*, Baker (p. 671), a fine Bornean species, with the habit of *C. asiaticum*; leaves lorate; flowers 30—40 in a dense umbel, with lanceolate pure white segments. Not yet introduced. *Elaphoglossum Backhousianum*, Moore (p. 672, figs. 103—105), otherwise *Acrostichum Backhousianum*, a fine Mexican fern, with simple oblong-lanceolate short-stalked fronds, 1½—2 feet long, the caudex slowly creeping, and the edge of the fronds fringed with a double row of brown scales; the fertile fronds are smaller and with longer stipes.—Backhouse & Son. *Davallia Griffithiana*, Hook. (p. 672), a handsome evergreen fern adapted for basket culture; it has long creeping rhizomes clothed with silvery scales, and dark green deltoid fronds of moderate size.—W. Howard. *Scolopendrium vulgare densum*, Kelway (p. 673), a very remarkable sport of the common Hartstongue fern, in which the fronds are 3—4 inches high, very much branched and crisped, so as to form little green balls, comparable to cushions of green velvet.—Kelway & Son. *Asplenium Laffaniana*, Baker (p. 673), otherwise *Diplazium Laffaniana*, a Bermuda fern, with oblong deltoid bipinnate smooth fronds, from an erect caudex, the pinnae lanceolate, the pinnales oblong obtuse, the veins free, and the sori running nearly from the costa to the tip of the veins.—Kew. *Cattleya labiata bella*, Rehb. f. (p. 700), a superb novelty, with large wavy flowers, having white sepals, delicate mauve-lilac petals, and rich mauve-lilac lip marked with a darker tint separated by white veins, the upper part blotched with orange.—G. Hardy, Esq. *Odontoglossum Schröderianum*, Rehb. f. (p. 700), a supposed wild hybrid, in the way of *O. tripudians*, with oblong acute white sepals and petals blotched with mauve-purple, and a pandurate lip, which is broader and larger in the hinder part, smaller and obcordate in front; and is white with two mauve-purple spots in the fore part of the disc, the callus with a plate of radiating spines on each side, yellow with red spots.—Baron Schröder. *Phaenopsis delicata*, Rehb. f. (p. 700), an elegant plant, near *P. intermedia*, supposed to be a wild hybrid; the roots and leaves are like those of *P. amabilis*; the flowers twice the size of those of *P. equestris* (rosea), with the sepals and petals white, the latter having some amethyst spots at its base; the lip has the side lobes spotted with brown at the base, and striped with lilac over the middle and border, while the middle lobe is ochre-coloured, lilac on the anterior part.—Low & Co. *Cyrtopera plantaginea*, Lindl. (p. 700), a long known plant now flowered for the first time in Europe, in Bohemia; it has leaves like the *Calanthus*, and a long raceme of white and green flowers, the side lobes of the lip bluish-green, the middle lobe white. Madagascar.—Baron Hruby. *Olearia Gunniana* (p. 732, fig. 113), a handsome composite shrub, from Tasmania, also known as *Eurybia Gunniana*; it forms a bush 3—5 feet high, with hoary branches and polymorphous leaves, the starry flowers clothing it with a sheet of white; hardy in sheltered positions or against a wall.—Veitch & Sons. *Miltonia Warszewiczii ætherea*, Rehb. f. (p. 732), a variety with a white lip.—C. Winn. *Hoya globulosa*, Hook. f. (p. 732, fig. 115), a fine cool stove climber, with oblong leathery leaves, and globose umbels of straw-coloured flowers.

Sikkim Himalaya.—Cranston Nursery Co. *Eulophia pulchra*, Lindl. (p. 732), a Madagascar terrestrial Orchid with oblong acute leaves, and a stem 2 feet high, bearing a long spike of yellowish-green purple-striped flowers.—Herr Kittel. *Cryptochilus lutea*, Lindl. (p. 733), an Indian Orchid, of which "the inflorescence is very curious; the bracts stand in a bipectinate order, and the light yellow urceolate tridentate flowers hang down in two rows, just as if they were small sulphur-coloured flowers of some new lily of the valley."—Herr Benary. *Dendrobium secundum niveum*, Rehb. f. (p. 733), flowers snow-white.—Maule & Son. *Anguloa dabia*, Rehb. f. (p. 764), a Columbian plant, possibly a natural hybrid between *A. uniflora* and *Clowesii*; the flowers are like those of *uniflora*, lemon-coloured with small purple spots.—B. S. Williams. *Oncidium unicolor lætum*, Rehb. f. (p. 764), a pretty variety, with a broad pandurate white lip blotched with numerous purple-mauve spots.—B. S. Williams. *Dendrobium Hughii*, Rehb. f. (p. 764), a pretty novelty from Singapore, found by and named after Mr. Hugh Low, son of Mr. Stuart Low, of Clapton; it has slender stems, linear acuminate leaves, and solitary flowers, in the way of those of *D. revolutum*, of the purest white, with a sulphur wart on the disk of the lip and an orange blotch under each horn at the summit of the column.—Low & Co. *Masdevallia urostachya*, Rehb. f. (p. 764), a fine species in the way of *M. Schlimii*, with many-flowered racemes of dark cinnamon-coloured flowers marked with small orange spots; discovered thirty years ago, but now first introduced alive.—F. Sander. *Rhododendron grande*, Wight (p. 767, with fig.), a noble Indian species which includes Hooker's *R. argenteum*, and Booth's *R. longifolium*; it forms an evergreen tree, with bluntly-oblong leaves, and heads of 25—30 large ivory-white flowers with deep purple spots at the base.—J. H. Mangles. *Oncidium meliosmum*, Rehb. f. (p. 796), a fine Oncid. with oblong ancipitous pseudobulbs, oblong ligulate leaves, and short-branched panicles of the richest yellow flowers, with blotches of the most exquisite crimson.—W. Bull. *Cattleya labiata Percivaliana*, Rehb. f. (p. 796), a fine new West South American Cattleya, with strong ancipitous ribbed stems, broad leaves, and large showy flowers of which the anterior half of the lip is of the richest deepest purple.—F. Sander. *Acrochane Rimanni* Rehb. f. (p. 796), a tropical Asian Orchid, with flowers of the finest lilac-purple nearly equal to those of *Dendrobium Kingianum*, with a lip of the darkest purple.—F. Sander. *Dendrobium Dalhousianum Rossianum*, Rehb. f. (p. 796), a giant flowered variety with nankin-coloured flowers, and an exaggerated beard on the anterior part of the lip. Birmah.—H. J. Ross. *Pieris japonica*, D. Don (p. 796, fig. 120), a hardy or nearly hardy evergreen Japanese shrub, with dark green lanceolate leaves, and long drooping clusters of urceolate white flowers; it is known as *Andromeda japonica* and is not new, but seldom seen.—A. Waterer. *Cattleya Sanderiana* (p. 802), a superb Cattleya with flowers upwards of 8 inches across, the sepals rosy-lilac narrowed at the base, the petals broader oblong wavy, the lip folded at the base and expanding into a nearly semicircular lobe 3 inches across, curled at the edge, deep rosy-lilac with numerous small pale spots, the throat and interior of the tube golden yellow with radiating stripes of orange brown.—W. F. Brymer.

The BOTANICAL MAGAZINE (June).—The plants figured are: *Aphelandra Chamissoniana*, Nees [t. 6627], a pretty S. Brazilian Acanthad, with elliptic-lanceolate leaves pinnately marked with white along the course of the costa and main veins, and bearing terminal-oblong spikes of yellow flowers subtended by recurved spiny-toothed bracts; called *A. punctata* by Mr. Bull. *Celia bella*, Rehb. f. [t.

6628], a pretty dwarf Orchid from Guatemala, having the funnel-shaped long-spurred fleshy flowers white, with rosy-purple tipped sepals, and a yellow lip. *Scrophularia chrysantha*, Jaub. et Spach. [t. 6629], a cheerful looking yellow-flowered biennial, of the vernalist type; from Asia Minor. *Dracæna Goldieana*, Hort. [t. 6630], a noble stove shrub from W. Tropical Africa, introduced by Rev. Mr. Goldie through the Glasgow (not Edinburgh) Botanic Garden; the leaves are beautifully marked with irregular transverse bands of grey, and the white flowers grow in small sessile terminal clusters; it is a true *Dracæna*. *Stachyurus præcox*, Sieb. et Zucc. [t. 6631], a slender straggling Ternströmiaceous deciduous shrub, from Japan, with ovate-lanceolate leaves, and axillary spikes of small green flowers. *Billbergia Euphemia*, E. Morr. [t. 6632], a pretty Brazilian bromeliad, with lanceolate rigid suberect leaves, and drooping 6—12 flowered racemes of greenish flowers tipped with violet.

GARTENFLORA (June) figures *Gaillardia pulchella Lorenziana*, Hort. [t. 1083], the handsome annual mentioned at p. 13 as *G. picta Lorenziana*, the former being the more correct name. *Scabiosa caucasica heterophylla*, Ledebour [t. 1084], a pretty hardy perennial, with variable pinnatifid leaves, and heads of pale rose or pink flowers. *Cereus hypogæus*, Weber [t. 1085], a 7—8 ribbed species from Chili, with clavate or ovate-oblong stems cylindrical above, and medium-sized purplish flowers having the petals margined with yellow.

GARTEN-ZEITUNG (June) contains a figure of *Nicotiana affinis*, a very ornamental plant, with long-tubed white flowers, noticed at p. 106. *N. longiflora*, Sweet [2 ser., t. 196] is not, as Dr. Wittmack seems to infer, the same as *N. undulata*. The figure in *Garten-Zeitung* represents the flower much too short in the tube.

The JOURNAL DES ROSES for June figures the fine single red Japau Rose, *Rosa rugosa*, which it appears was cultivated in 1838 in the Jardin des Plantes under the name of *R. kamtschatica*, Vent. When reintroduced to Europe about 1870 it was called *R. Regeliana*, by Linden; and in 1874, *R. Andreæ*, by Lange, in the Botanic Garden, Copenhagen. As a free-blooming distinct and striking hardy flowering shrub, it has few equals.

EUROPEAN FERNS, by James Britten, F.L.S., with Coloured Illustrations from Nature by D. Blair, F.L.S. London: Cassell, Petter, Galpin, & Co. This is a handsome book, a popular book, and a good book, and therefore one which we commend to the notice of all who are interested in ferns. It is well written, and sound as to its teaching, and it is profusely illustrated both as regards the coloured plates and the woodcut figures. The book by taking all the European Ferns within its scope, occupies new ground, since there has been no previous work on the subject of ferns limited to this area.

The introductory portion occupying some 44 quarto pages treats of the structure, classification, geographical distribution, cultivation, bibliography, and geological distribution of the Fern family, of all which such details are given as are likely to be useful and interesting to general readers. The number of species given as European is 73, of which those not familiar as British are *Onoclea Struthiopteris*, *Woodsia glabella*, *Dicksonia Culeita*, *Davallia canariensis*, *Cystopteris sudetica*; *Pteris arguta*, *longifolia*, and *erectica*; *Cheilanthes fragrans*, *hispanica*, and *Szovitzii*; *Woodwardia radicans*; *Asplenium Hemionitis*, *Heuffleri*, *Petrarchæ*, *Seclosii*, and *fissum*; *Athyrium crenatum*; *Scolopendrium Hemionitis*; *Notholæna Marantæ*, and *lanuginosa*; *Gymnogramma Pozoi*, and the *Botrychium*s—*matricariaefolium*, *ternatum*, *simplex*, and *virginicum*. The coloured plates are 30 in number and represent

all the genera, and the majority of the species described in the book; the subjects are treated as pictures, the entire plant being shown, though much reduced in size—an arrangement, which in some cases is misleading, though it perhaps best fits in with the plan of a popular table volume. The execution of the plates is very good, and Mr. Blair may be complimented on his general success, as it is not always easy, especially in small figures, to catch the peculiar characteristics of every species.

As regards classification, Mr. Britten, whose work has been carefully and judiciously done, has adopted a middle course, having admitted some genera and species, which are not permitted a separate existence in some of our fern publications, as for example the genera *Athyrium*, *Polystichum*, and *Lastrea*, and the species *Lastrea cristata*, *spinulosa*, *dilatata*, and *æmula*. Taken altogether, we have here a very elegant and pleasing volume, in which the European Ferns are depicted and described in a trustworthy manner. We note a few slips, as for example where the plates are lettered "*Aspidium*" and "*Nephrodium*," neither of which generic names are adopted in the text, where the plants are ranged under *Lastrea*; but this is a small blemish which can easily be put right when the work is reprinted, as no doubt will soon be requisite.

The BOTANICAL ATLAS, by D. M'Alpine, F.C.S. Edinburgh and London: W. & A. K. Johnston. This is a series of folio plates, intended to form a guide to the practical study of plants, and containing representations of the leading forms of plant life. The first of thirteen parts, each to contain four plates, of which the Atlas is to consist, is now before us, and gives a favourable impression as to the utility of the work when completed. One plate is devoted to the Chickweed, the Maiden Pink, and the Campion, several figures of each being given, and described both on the plate itself, and more fully in the page of text printed to accompany it. Another plate supplies similar details of the Fumitory and Wallflower; another of the Herb Robert or Geranium; another of the White Dead Nettle and the Sage. Both figures and descriptions are carefully executed, so that the Atlas will be particularly useful in helping the student, by showing him how to set to work when examining and dissecting plants, and thus enabling him with comfort to extend the field of his inquiries. It is to be issued in monthly parts.

DECAS PLANTARUM NOVARUM, auctoribus E. R. A. Trautvetter, E. L. Regel, C. J. Maximowicz, K. J. Winkler. Petropoli, 1882. A description of ten new plants, dedicated by the authors to Mr. C. Renard. The plants include a new genus of Umbellifers, *Renarda*, Regel, allied to *Pleurospermum*, in which the umbels are without an involucre, but furnished with a radiate white involucre larger than the flowers and resembling a terminal white blossom nearly an inch across. The other plants described are—*Geranium Renardi*, Trautv., *Senecio Renardi*, C. Winkler, *Gentiana Renardi*, Regel, *Acantholimon Fetisovi*, Regel, *Statice arbuscula*, Max., *Fritellaria asuriensis*, Max., *F. Przewalski*, Max., *Allium Grimmi*, Regel, and *Metanartheicum foliatum*, Max.

The HARDY FRUIT BOOK, vol. II., by D. T. Fish. London: L. Upcott Gill. We have here a continuation of Mr. Fish's treatises on Hardy Fruit culture, the practical character of which are assured by their authorship. The present volume of some 300 pages, contains the Apricot, Cherry, Chestnut, Currant, Fig, Filbert, Gooseberry, Medlar, Mulberry, Plum, Quince, Raspberry, Strawberry, and Walnut. Some of the illustrations might be improved, but the cultural information is copious and reliable.

VEGETABLE CULTURE FOR AMATEURS, by W. J. May. London: L. Upcott Gill. The contents of this useful pamphlet are ranged under the heads

of Root crops, Green crops, Salads, Herbs, Fruiting Vegetables, as Cucumber, Egg plant, Tomato, &c. There are also chapters on Forcing, Quantities of Seeds, Storing, Diary of Work. The information given is concise, and likely to be useful to amateurs who like to amuse themselves in their gardens.

L'ILLUSTRATION HORTICOLE (5 liv.) contains figures of *Araucaria Mülleri*, A. Brongn. and Gris. [t. 449], a New Caledonian species, with spreading branches, clothed with ovate imbricated leaves, and one of the most elegant of the group.—Compagnie Continentale d'Horticulture. *Spathiphyllum hybridum*, N. E. Brown [t. 450], an elegant hybrid between *S. Dechardi* and *S. Patini*, the green leaves broadly-lanceolate or oblong-lanceolate, and the white spathe lanceolate acuminate.—Comp. Cont. d'Horticulture. *Kentiopsis Luciani*, Lind. [t. 451], an elegant greenhouse palm of the *Kentiopsis* group, remarkable for its large bright green pinnate fronds in the way of *K. Lindenii*; New Caledonia.—Comp. Cont. d'Horticulture. There is also a good woodcut figure of Mr. Bull's *Adiantum aneitense*.

REVUE HORTICOLE (June 1—16) figures *Croton musaicus*, Hort. Chantrier (p. 240), a beautiful hybrid with large oblong-lanceolate leaves, with a crimson midrib and veins, and green marginal blotches, bordered with yellow at first, the yellow changing with age to crimson, when the colouring is very brilliant; one of the best *Crotons* yet raised.—MM. Chantrier. *Grape Barbarossa* with cottony leaves (p. 264), one of three Italian varieties bearing this name, the present one producing ovate shouldered bunches of smallish round reddish-brown berries, "d'un beau rose légèrement-pruineux," with a sugary juice without special flavour.

REVUE DE L'HORTICULTURE BELGE (June) has a plate of *Luculia gratissima*, which is not bright enough in colour; also of *Kämpferia Gilberti*, one of Mr. Bull's novelties from India.

BULLETIN D'ARBORICULTURE, &c. (May) figures four varieties of *Gooseberries*:—*Plunder* (Wood), a smooth green; *Speedwell* (Poulson), a hairy red; *Rover* (Brotherton), smooth deep red; and *Ringer* (Chippendale), a smooth yellow—all of good quality.

The GARDEN (May 13—June 17) gives coloured figures of *Salvias* (pl. 336), including *S. Bethelii*, *S. leucantha*, *S. splendens Bruanti*, *S. splendens M. Issanchou*, *S. cacaliaefolia*, all useful winter-flowering kinds. *Cattleya gigas* (pl. 337), a fine form from Ashgrove, Pont-y-pool. *Campanula Allioni* (pl. 338), a dwarf species from the European Alps, forming close, dwarf tufts, with numerous large erect purple bell-shaped flowers. *Odontoglossum hebraicum* (pl. 339), a peculiarly marked *Odontoglossum*. *Brodiaea laxa* (pl. 340), a beautiful hardy North American bulb, of which five varieties are depicted. *Iris Kämpferi* (pl. 341) represents a light and a dark coloured variety of this fine Japanese *Iris*.

GARDEN GOSSIP.

—MR. WESTLAND, of Witley Court, states, that in his locality the state of the HARDY FRUIT CROPS, is, at the present time, very discouraging. "In so far as Apples, Cherries, Pears, and Plums are concerned," he writes, "I have never seen a worse crop; and a more unsatisfactory state of health in the trees it is not possible to conceive, the attack of blight and fly being so overpowering and virulent as to entirely arrest growth, causing the trees to present a lamentably seared and weather-beaten aspect. The Plums in particular are most seriously affected, the leaves being crumpled up, and falling off in heaps, while many of the branches are perfectly dead. Without a speedy change to

a genial condition of the atmosphere, many of the trees must certainly perish. Black Currants are terribly infested with the fly, and many bushes are almost bare of leaves, the ground being covered with them. I have never before witnessed blight so profuse and so destructive; and never before was there a greater promise of an abundant fruit season, the blossom upon all kinds of trees being profuse and healthy-looking up to the end of April, when the destructive gales and the continued easterly winds, with cold frosty nights, fostered the development of such legions of insect pests that the fate of the fruit crops was sealed."

— **WHIT** Monday was largely utilised by **GARDEN VISITORS** in different parts of the country. It is recorded that 95,000 persons visited the Royal Gardens at Kew on that day; some 51,000 flocked to the Manchester Botanic Garden to witness the grand flower show then open; and over 8,000 are said to have passed into the Royal Botanic Garden at Glasnevin, Dublin, on the same day. The holiday could hardly have been better spent than it was by those tens of thousands of pleasure-seekers.

— **It** has been proposed to hold a **CARNATION and PICOTEE SHOW** at Oxford, in connection with the Exhibition of the Royal Oxfordshire Horticultural Society, on August 2nd, the show to be regarded as supplementary to that of the National Carnation and Picotee Society, which takes place at South Kensington on July 25. We understand that Mr. E. S. Dodwell has been requested to make the necessary arrangements for carrying out this proposal, which has our hearty concurrence, as it will provide, in consequence of the later date, a more favourable meeting ground for northern and southern growers than the meeting at Kensington will do. To provide the necessary prizes it is suggested that the two above-named Societies should each vote ten guineas towards a fund to be raised for that purpose, and that the remainder, about a similar sum, shall be raised by special subscription—say one-half from friends of the Oxford Society, and one-half from friends of the National Society. We cannot doubt the needful aid will be forthcoming, and we are heartily glad that Mr. Dodwell's health and strength has been so much recruited by his residence in the country that he is able to undertake the supervision of the arrangements. Several donations have been already promised.

— **THE** following **PRESENTATIONS** have recently been made:—To Mr. J. MILLER on his retirement from the management of the gardens at Clumber, a purse of gold, by a few old friends and well-wishers, as a slight mark of the esteem and respect in which he has been held during his 20 years' residence in the neighbourhood of Worksop.—To Mr. THOMAS MOORE, F.L.S., on his retirement from the joint editorship of the *Gardeners' Chronicle*, a handsome silver salver and purse of three hundred guineas. The salver bore the following inscription: "Presented to Thomas Moore, Esq., F.L.S., F.R.H.S., &c., on his retirement from the joint editorship of the *Gardeners' Chronicle* newspaper, by Friends who value his scientific labours, and cherish remembrances of his constant devotion to Social Fellowship, and Pure Philanthropy. May 23, 1882."

— **MR. W. T. THISELTON DYER**, Assistant Director of the Royal Gardens, Kew, has had

conferred on him the honour of being named Companion of the Order of St. Michael and St. George, in recognition of services rendered to the various colonial governments in connection with colonial botanic gardens, economics, plantations, &c.

— **THE** name of **MIMULUS CUPREUS MELLORI** was recently given by a conclave of florists to a brilliantly-coloured variety of this beautiful monkey-flower growing in the garden of Mr. Samuel Barlow, Stakehill, Castleton, near Manchester. The variety has the same close dwarf habit as the type, but its flowers are of a more brilliant crimson scarlet than the forms usually met with, so that the plant, which is exceedingly free, is also very effective. It is supposed to have been raised by the late Thomas Mellor, of Ashton-under-Lyne, and was given to Mr. Barlow by him; and altogether is so good in every way, both as a pot plant and a hedder, that it was determined to distinguish it by the name of the person who raised it or brought it into notice.

— **THE** **IVY-LEAVED SNAPDRAGON**, *Linaria Cymbalaria*, "the creeping Sarah" of the cottager's window, yields two pretty varieties.

The first, named *Linaria pallida*, which however Messrs. Backhouse, of York, make synonymous with the second, resembles the type in all respects except in the size of the flowers, which are much larger and more profuse. The second is still finer and more desirable, and has been recently sent out by Messrs. Backhouse, under the name of *L. Cymbalaria maxima*; it is noted in some of the journals as having the habit and appearance of the other, but with flowers four times the size, and, moreover, they possess a most pleasing fragrance. Messrs. Backhouse however say, "flowers twice the size of the ordinary Ivy-leaved Snapdragon; foliage not quite so large and highly pubescent." It is to be hoped that this plant will soon find its way to many a rockwork, and many a cottage window.

— **M. HUET** in recommending in the *Journal de l'Agriculture* the use of **LIME** as a **SLUG DESTROYER**, describes an excellent plan he has devised of overcoming the difficulty which is found in sprinkling the powdered lime under the leaves or amongst the branches of the plants in such a way that it will reach the pests. It is by using for the purpose a pair of bellows such as is employed to sulphur vines. The result has been perfectly satisfactory. The lime should be slaked in the ordinary way, but not moistened over much, and after being dried and sifted will be ready for use. A handful or so being put into the bellows, and latter worked just as it would be if the operator were about to sulphur a vine, the lime will be thrown out regularly, and will diffuse itself through the air like a kind of fog, and make its way into the hearts even of the most compact plants. When it has been well dried—an essential condition to the success of the experiment—it will even remain in the air for a few seconds. All the groundlings and slugs which are on the surface of the earth will then perish, as will also all the snails which have come out of their shells. The best time to apply the lime is early in the morning, when the dew is on the ground, and the slugs are hard at work feeding. If there has been soft rain, preceded by drought, the gardener ought immediately to take advantage of the opportunity, and make the tour of his garden, bellows in hand; for it is at such a time that the obnoxious creatures will come out in the greatest abundance. A few handfuls of

powdered lime will be sufficient for a moderate-sized garden, and they can be sprinkled over it in about half an hour. If the operation is repeated two or three times, the ravages of the insects will be put an end to for several weeks; and if applied twice, once in the morning and once in the evening, a seed plot may be preserved which but for this would be completely destroyed. The lime will only kill the slugs, &c., whilst it is fresh.

— A REMARKABLY fine specimen of *ANGULOA CLOWESII*, says the *Irish Farmers' Gazette*, has been flowering at Mount Anville Park, Dundrum, the residence of H. Roe, Esq., D.L. The plant, which is growing in a large pan, is fully four feet through and twelve feet round. It is in the highest health, and showing thirteen or more fresh growths, while round the circumference of the leafy centre appear no fewer than 65 flower scapes, each capped with its great cymbiform cup of golden or most pronounced æsthetic yellow, the whole forming a picture the plantsman who has seen it is not likely soon to forget. Certainly we have never seen any example of its kind to come near it.

— MESSRS. LOW & Co., of Clapton, have bloomed during the past spring a new pure white *Phalænopsis* — *PHALÆNOPSIS SCHILLERIANA ALBA*—the first which has been observed, and altogether a very fine acquisition. The sepals, petals, and labellum are pure white, the crest of the lip yellow, and the side lobes white, with yellow spots on the upper portion. It is a very pretty novelty.

— THE principle on which DWARF HYDRANGEAS are grown is to strike the tips of the shoots, to ripen the terminal bud, and to keep it from starting till the plants are required to blossom. The practice is very simple. The cuttings are put in in June, or early in July, in a sharp open compost and placed in a gentle warmth until they are rooted; they are then hardened off immediately before they have time to elongate, but the leaves are kept fresh and healthy so as to plump up and ripen the terminal bud. This is accomplished by plunging the young plants out-of-doors in the full blaze of the sun in a bed of coal ashes. If they are kept in 4- or 5-inch pots they do not grow much, and the wood becomes thoroughly ripened by the early autumn. In a few weeks after being introduced into a gentle heat the following spring a fine flower-truss will be produced upon a stem not much over a foot high.

— THE species of *BROWNEA* are stove trees of very great beauty. The gorgeous flowering *Brownea Ariza* was, we learn, during some weeks of the past spring the glory of the stove conservatory at Glasnevin, being well furnished with its great pendent heads of crimson blossoms. This particular plant has this season been flowering beyond its usual degree. The appearance of the young foliage of the *Browneas* is, moreover, as curious and interesting as their flowers are magnificent. In the same house is a remarkably fine specimen of the more familiar species, *B. grandiceps*, which has been displaying some of its still larger but less brilliant flower-heads, which also was an object of interest to visitors for some weeks after *B. Ariza* had gone out of blossom. The gigantic tassels of flowers in both these plants were produced so abundantly that the branches are heavily weighed down with them.

— THE handsomely variegated *TRADES-*

CANTIA MULTICOLOR is largely used at Ashton Court, Clifton, Bristol, as an edging plant. Planted in good soil it grows like a weed, and is a conspicuous feature in the flower garden. It appears to prefer a warm sunny position. The plants need a little pegging to get them into position, and then, if needs be, pinching-back can be performed to keep the line perfect. The old *T. zebrina* (*Cyanotis vittata*) is also used for the same purpose, but *T. multicolor* more so because of its handsome and striking variegation.

In Memoriam.

— MR. ANTHONY OLIVER, late gardener to the Earl of Ravensworth, died at Eslington Park on May 8, at the age of 80 years. He entered the Ravensworth family in the year 1824 as head gardener, a position he held up to the day of his death. Mr. Oliver made the culture of vegetables a special study, and cultivated them well; a stock of white Celery, that often bears his name, has been grown by him for fifty-six years; the Early Monarch Cabbage has also been associated with his name for thirty years. His son, Mr. Joseph Oliver, succeeds him.

— MR. JAMES VICK, of Rochester, U. S., died of pneumonia on May 16, in his 64th year. He was born at Portsmouth, and in his time had been printer, editor, author, publisher, and merchant. He went to America in 1833. He commenced his great seed business practically in 1860, and his success is said to have been marvellous. 3,000 letters per day was not an unusual occurrence; he has paid more than 30,000 dollars per year for postage, and his *Floral Guide* has a circulation of over 200,000 copies. All this has been accomplished, writes the editor of the *Gardener's Monthly*, by hard work and faithful interest to his customers. No man in his day has so endeared himself to the people; he was, in the fullest sense of the word, a Christian gentleman; his daily life was a record of good works and kind deeds.

— MR. JAMES N. WILSON, of the firm of Wilson & Co., fruit merchants, Covent Garden, London, died at Lisbon on May 24. He has for many years successfully carried out in Portugal the cultivation of fruits and vegetables on English principles.

— MR. GEORGE WEMYSS, gardener to Sir G. H. Scott Douglas, Bart., at Springwood Park, Kelso, in whose service he had been for thirty years, died on May 25, aged 62 years. He was a prominent worker of the Kelso Horticultural Society, and was the founder and moving spirit of a useful club, whose object was to induce gardeners to meet together, and bring such of their produce as they thought fit to show to their fellow-workers.

— MR. ROBERT A. OSBORN, of the Fulham Nursery, died on June 25, at Tunbridge Wells, at the age of 27 years. He was the only surviving son of the late Mr. Thomas Osborn, and representative of the well known and highly respected firm of Osborn & Sons, which has for many years held a foremost position among the nursery establishments of the metropolis.



W.H.Fitch del

Nerine excellens

Chromolith Severeys Brussels

NERINE EXCELLENS.

[PLATE 567.]

THIS beautiful hybrid Amaryllid, which belongs to the interesting genus *Nerine*, was first described by us under the name here adopted in Mr. Bull's *New Plant Catalogue* for 1882. It is a very charming addition to the little family group, which is in every way worthy the attention of all lovers of flowers, since it consists of greenhouse bulbous plants of the easiest culture, and of free-flowering habit.

The plant now before us has ovate bulbs of moderate size, from the neck of which issues the flower scape and the foliage. The latter is broadly linear or lorate, blunt at the apex, and of a cheerful green colour. The scape rises about a foot in height, and terminates in an umbel of six to nine flowers, which are showy and attractive in character, being of a

soft bright rosy-pink, with a carmine crimson rib down the centre of each segment, and expanding so as to form a large conspicuous flower-head; the segments of the flowers are two inches in length, reflexed and somewhat undulated, five of them directed upwards, the other projected forwards, and the filaments declinate with pink filaments and crimson anthers, which when they burst discharge a yellow pollen. The bracts at the base of the umbel are coloured pink. Like most of its race it flowers towards the end of the summer months.

We are indebted to Mr. Bull for the opportunity of figuring this pretty hybrid, which we trust may be the means of drawing attention to a meritorious but somewhat neglected family of greenhouse bulbous plants.—T. MOORE.

THE PELARGONIUM SOCIETY'S SHOW.

THE increasing interest which is manifestly taken in the Exhibition of this special Society, and we may add in that of some other floral societies similarly circumstanced, affords a good reason for pressing on their several supporters the duty of maintaining them in the efficient state to which they have—not without some effort—been brought, and not allowing them to sink into a languishing or dying condition as did the first National Rose Society, when left to the tender mercies of the R.H.S. as a step-parent, a relationship which some of our friends would have us adopt for the special Societies of the present day, by affiliating them to a parent which has been slow to show any particular regard for them.

The exhibition of 1882, which was held at South Kensington on June 27th, was a well-marked success, and afforded an opportunity of showing some courtesy to the members of the “*Cercle d'Arboriculture de Belgique*,” which at the time were paying this country a visit of horticultural inspection.

The Prize Schedule of the Pelargonium Society is divided into three sections—one for the encouragement of new varieties not in commerce; one for specimen plants of older varieties; and a third for cut flowers. “If,” says a contemporary, “the Pelargonium

Society cannot be complimented on having induced raisers to break out into any new and distinct paths on the way of hybrid crosses, they can take credit for encouraging growers to produce the various classes of Pelargoniums in fine and attractive form, and they have also made the Pelargonium Show one of the leading floral institutions of the year, and that a very attractive and interesting one. There is not nearly so much of sameness of character about it as one might suppose, as the various classes of Pelargoniums differ so widely in form and habit; and in bringing together as it does all the best varieties in cultivation it enables intending purchasers to make good selections, while the encouragement given to the introduction of new varieties brings growers and exhibitors into annual contact with the best of the novelties.”

Section I. Varieties not in commerce.

It is to be regretted that there were no entries in the classes provided for new Hybrids. They cannot be expected to be as numerous as new varieties, and it may take some few years to induce growers to make the attempt, or to hit upon the happy cross which may make their attempt successful. So it must ever be, and we therefore trust the Society will not be discouraged by the absence of

results, but continue to offer inducements for effecting what is very desirable, namely, a new break, or a new combination, from amongst the many-featured species of this popular genus.

NEW LARGE-FLOWERED (SHOW) VARIETIES :—

(3). 1st, Mr. C. Turner, Slough, with *Zealot*, bright orange, lower petals slightly veined with dark, rich dark top petals, very effective; *Veteran*, salmon-pink lower petals, flushed with orange, and having slight blotches of dark; large dark top petals; very free and fine form; and *Royal Review*, dark salmon-pink lower petals, with crimson pencillings; very fine dark top petals; large and free. (1). 1st, Mr. C. Turner, with *Cromwell* (Foster), rich pale orange-scarlet lower petals, fine dark top petals, white throat, fine form, and highly effective. In this class Mr. Little staged *Britomart* (Beck), bright orange-crimson lower petals, dark top petals, free and showy.

NEW SMALL-FLOWERED (FANCY) VARIETIES :—

(3). 1st, Mr. C. Turner, with *Flossie Thompson*, rosy-pink, paling to pink on the margins, conspicuous white throat, very novel and distinct; *Indian Chief*, dark claret, marbled with crimson, salmony-maroon upper petals, conspicuous white throat; and *Irene*, blush lower petals, with slight bright rose spot, pink upper petals, with rosy blotch, very pretty and delicate.

NEW LARGE-FLOWERED DECORATIVE VARIETIES :—

(3). 1st, H. Little, Esq., Hillingdon (Mr. Wiggins gr.), with *Aurora*, pink lower petals, orange-pink upper petals, dark blotch, handsomely fringed flowers, very free, good habit; *Brilliant* (Lanke), rich orange-scarlet, dark top petals, very bright and effective; and *Rose Superb* (Little), pale pinkish-rose lower petals, slight blotch on each petal, dark top petals, large, fine form, and very free. Mr. W. Brown, Hendon, staged *Reliance*, rose lower petals, with slight dark blotch, dark top petals; *Herald*, dull crimson blotched with dark on each petal; and *Ivesvius*, bright rosy scarlet, dark top petals, very free and effective, all raised by himself.

In the remaining classes, for Double-flowered Zonals, Ivy-leaved, Single Zonals and Hybrids, there was either no entry or no award.

Section II. Specimen Plants.

6 LARGE-FLOWERED (SHOW) IN 8-IN. POTS :—

1st, Henry Little, Esq., with good specimens of Sultana, Illuminator, Prince Leopold, Claribel, Setting Sun (Jackson), pale bright orange-salmon, very bright and free; and Victory. 2nd, Mr. C. Turner, with smaller but fresh specimens of Prince Leopold, Claribel, Amethyst, very dark claret-purple, extra fine; Victory, very fine; Modesty, and Illuminator.

18 LARGE-FLOWERED (SHOW) IN 6-IN. POTS :—

A closely contested class, the victory resting with the smaller but fresher plants. 1st, Mr. Turner, with Illuminator, Florence, Invincible, very fine; Ruth, deep pink, very pleasing; Martial, Magician, Ritualist, large and very fine; Victory, Amethyst, Joe, Sir W. Scott, The Baron, very fine; Fortitude, Rayon d'Or, rich orange-crimson, very fine; Countess, soft pink, very pleasing; Margaret, very fine; Royal Review, very fine; and Chivalrous. 2nd, H. Little, Esq., with Hermit (Beck), Faust, Snowflake, a beautiful white variety; Emperor William, Prince Leopold, Dauntless, very fine shape; Gloriana (Beck), Ruth Little (Jackson), very bright and pleasing; Valiant, Fireball (Foster), very brilliant in colour; Claribel, Joe, Rosalind, Fortitude, very fine; Thebais (Beck), rich crimson, very striking; Sultana, Amethyst, very distinct and striking; and Femosa (Foster).

6 SMALL-FLOWERED (FANCY) IN 6-IN. POTS :—1st, Mr. Turner, with Mrs. Pope, Mrs. Hart, Electra, Princess Teck, Lady Carington, very delicate and pretty; and Mr. Pottle, very fine.

6 LARGE-FLOWERED DECORATIVE IN 8-IN. POTS :—These make very attractive exhibition plants, on account of their varied and striking colours, and free habit. 1st, H. Little, Esq., with Robina (Hayes), Duchesse de Morny, Harlequin (Hayes), Madame Thibaut (Lemoine), a very pretty variety spotted with earmine-pink; Duchess of Edinburgh, and Triomphe de St. Mande. 2nd, Mr. C. Turner, with Digby Grand, Duchess of Edinburgh, Prince of Wales, Venus, Duchess of Bedford, and Triomphe de St. Mande.

18 LARGE-FLOWERED DECORATIVE IN 6-IN. POTS :—

One of the most striking features of the show. 1st, H. Little, Esq., with nicely flowered examples of Sir J. Outram, white, each petal spotted with dark, very fine; Marie Malet, Reamie (Jackson), rich orange salmon, very fine and striking; Robina (Hayes), Lady Isabel, pale lilac-purple, with slight rosy spot on the lower, and a dark blotch on the upper petals—very distinct in character; Improved Triomphe de St. Mande, a deep crimson-coloured variety, of a showy character; Volonté Nationale, white, with a circle of orange-pink spots, white throat and margin, very fine; Comtesse de Choiseul, large white, very fine; Multiflora (Jackson), rich shaded earmine, dark top petals, very fine; Poiteau, a fine purple-flowered variety; Mrs. Potten (Laurence), white, with a slight red spot on the lower petals, black spot on upper petals, very pretty; Princess of Wales, Claude de Bucknolt, Bracelet, and Digby Grand.

6 ZONAL IN 8-IN. POTS :—1st, Mr. J. Catlin, gr. to Mrs. Lermite, Finchley, with large specimens of Rev. Mr. Atkinson, rich crimson, with fully one hundred trusses of bloom; Ouida (Denny), cerise-scarlet; Fanny Catlin, salmon, very fine; Cymbeline, bright scarlet, very fine; Alice Burton, pink, and Fanny Thorpe—the last four of Mr. Catlin's raising. 2nd, Henry Little, Esq., with smaller but finely grown bushy plants, carrying from twelve to eighteen trusses of bloom, of Gathorne Hardy, Atala, and Ivanhoe, scarlet; Hetty and Mr. Patchett, cerise; and Olive Carr, pink.

18 ZONAL IN 6-IN. POTS :—1st, H. Little, Esq., with nice bushy specimens of North Star, Leander, Guinea, Golden Glory, Aphrodite, Mrs. Bennett, Romeo, Irene, Rigoletto, Beatrice—shades of crimson; Advance and Maréchal McMahon—cerise and scarlet; Sophia Birkin, Evening Star, and Polly King—salmon; and Prima Donna, white.

6 DOUBLE-FLOWERED ZONAL IN 8-IN. POTS :—1st, Mr. Catlin, with finely trained specimens of Gorgeous, with at least fifty fine trusses of bloom; Mons. Thibaut, with nearly one hundred trusses; Député Viox, fine dark crimson; Lively, Devotion, and Dauntless. 2nd, Mr. W. Meadmore, Romford, with Souvenir de Castile, Eugène Baudouin, Cassimir Picre, Azim, Député Varroy, and M. Litte, smaller plants, but nicely bloomed.

18 DOUBLE-FLOWERED ZONAL IN 6-IN. POTS :—

1st, H. Little, Esq., with nicely grown bushy bloomed specimens of W. E. Gladstone, F. Raspail, Mons. G. Lowagie, J. C. Rodbard, and Gambetta, shades of scarlet; Grand Chancellor Faidherbe, Roi des Violets, Henry Cannell, and Aglaia, dark crimson and purple; Dr. Jacoby, M. A. Dupuis, and Barthélemy St.-Hilaire, salmon; Urania, Jules Simon, Paul Bert, and Eugène Baudouin, pink and purple. 2nd, Messrs. J. Saltmarsh & Sons, Chelmsford, whose leading sorts were Lord E. Cecil, Sultan, Le Phare, C. H. Wagner, Wonderful, Madame Thibaut, Lucie Lemoine, and Mrs. Arthur Lattey.

9 IVY-LEAVED IN 8-IN POTS :—These made a distinct and excellent feature in the show. 1st, H. Little, Esq., with conical-shaped specimens of Gloire d'Orleans, Anna Pfitzer, Madame Emile Baltet, A. F. Barron, Mdle. Jeanne Wonters, Monsieur Crousse, Sarah Bernhardt, all double-flowered; and Mrs. H. Cannell and Monsieur de Boringe, single.

The Cut flowers of both the Show and Zonal types, made a very striking display. Mr. Turner, Messrs. Saltmarsh, and Mr. Little taking the leading prizes for the former, and Messrs. Cannell & Sons, and Messrs. Saltmarsh & Sons for the latter. Messrs. Cannell were also first in the Ivy-leaved group. Several First-class Certificates were awarded; these will be found in our Register of Novelties under the head of New Flowers.—T. MOORE.



MR. BARLOW'S FLOWER BOTTLE.

ANY arrangement by means of which the motley array of vessels of all forms and sizes, used for the setting up of cut flowers which one sometimes sees at exhibitions, when no proper provision for this object has been made, would be banished, would directly conduce to an orderly aspect of the tables; but these proper vessels should be forthcoming to replace the objectionable ones. The stands for 6, 12, 24, 36, or more blooms are sufficiently neat and useful; it is in the case of the single flowers, especially when there is much class showing, as among Tulips and Carnations, that the improved arrangements are required.

The best of the flower bottles devoted to this object which has come before us is Mr.

Barlow's, represented in the accompanying woodcut. It was designed by him to be used at the Royal National Tulip Society's Exhibition, and was found to serve the purpose admirably, while it gave a tone of order and regularity to the staging of the competing blooms. It is made of thick black glass, and is of the following dimensions:—Height $5\frac{1}{2}$ inches; diameter inside the bulb 3 inches; diameter at the mouth $\frac{1}{2}$ inch. The dark colour of the material throws up the flowers, which are consequently shown off to better advantage, and the neck is sufficiently long to give a good hand hold in moving the bottles from place to place, without being at all out of proportion to the base, which being made broad so as to hold a good supply of water is made sufficiently weighty therewith to stand firmly on the table.

The accompanying figure will make the flower bottle at once familiar to every one. We have to thank Mr. Barlow for the sketch whence our woodcut was prepared; and we understand the bottles themselves were made by Messrs. Molyneux, Webb & Co., Kirby Street, Manchester, of whom doubtless they could be obtained.—T. MOORE.

WEEDS ON GRAVEL WALKS.

THE extraordinary mildness of the late winter was highly favourable to the growth of Weeds on the Gravel Walks, especially those in damp and shaded positions, and thus an extra amount of cleaning became necessary. Manual labour is not only very costly when employed in the mechanical removal of the Weeds, but the loosening of the surface of the walk by the process is prejudicial, and thus some means by which the growth can be arrested, and the weeds destroyed *in situ*, is to be preferred. From time to time we have used a variety of chemical compounds for the purpose, and during the past winter special detailed experiments have been undertaken at the express wish of the [R.B.S.] Garden Committee, of which the following is Mr. Sowerby's report:—

"I have to report that since my experiments in 1869 with chemical compounds, with a view to determine their relative values in the destruction of vegetable growth on Gravel Walks, additional trials have from time to

time been made with a variety of substances recommended for the purpose—amongst others, Sulphuric, Sulphurous, Hydrochloric, and Carbolic Acids, Chloride of Sodium, Sulphate of Copper, Chloride of Zinc, Flowers of Sulphur, Paraffin Oil, and Burnett's and other disinfecting fluids; and also during 1876—1877 a large quantity of refuse fluid, presented to the Society from a Colour Works, which contained free Sulphuric and other Acids, Sulphate of Copper, and most probably other Metallic Salts. It was used in the proportion of one of mixture to three of water, and its application destroyed all vegetable growth, and none reappeared on the walks for more than three years after. Since 1877, however, we have not been able to obtain a further supply of this or any similar liquid from any source; and the authorities at Gas Works report that the only refuse they can supply at a low rate is spent Lime.

"Of the several agents tried from time to time, three only have been retained for further experiment, all the others being considered unsuitable, either from their high cost or inefficiency. These three are—1, Sulphuric acid; 2, Carbolic acid; 3, Chloride of sodium (common salt).

"After trial of several proportions, the following were determined upon. It will be noted that the proportion of sulphuric acid is given by weight, as this is, for well known chemical reasons, the most reliable measure; the weight of salt is when dry as in ordinary domestic use. The relative values are based on the following commercial values, viz.:—Sulphuric acid, 1*d.* per lb.; carbolic acid (Calvert's No. 5) at 3*s.* 9*d.* per gallon; common salt at 40*s.* per ton; water cost, nil; weight, 10 lbs.=1 gallon.

1. Sulphuric acid 1 to 15=10 lbs. to 150 lbs. water =10*d.*—850 to 1000 ft.
2. Carbolic acid 1 to 50=2½ pts. to 125 pints water =14*d.*—850 to 1000 ft.
3. Salt, 56 lbs., 12*d.*—850.

"The area of walk treated with each amount of liquid is stated at from 850 to 1000 superficial feet, as the quantity required depends upon the form, pitch, or condition of the walk—such as rough, damp, shaded, &c., and especially in relation to sulphuric acid and salt, both of which have so high an affinity for water, that the hygrometric condition of the gravel is important,

"The action of the several compounds is as follows—No. 1, Sulphuric Acid, is immediately fatal to all vegetation on contact. No. 2, Carbolic Acid, is slow in action, gradually turning the leaves, and especially the roots, hay-brown. No. 3, Salt, is almost immediately fatal on a damp walk, or after the first wet day, and in a short time a few sharp showers of rain wash the gravel clean and bright.

"The preventive action of Salt is only good for about three or four months, vegetation re-appearing in perhaps an aggravated amount on damp or shaded walks. As yet the duration of the preventive action of the Acids has not been fully determined, but the Garden Superintendent has marked on a plan the walks as severally treated, and the Fellows of the Society and visitors to the Garden will be enabled to judge the relative values of the agents.

"The liquid compounds were spread over the walk by the ordinary water pots with tin roses, lead or pewter would be better, zinc must not be used. A rose made of thin sheet German silver resisted the action of the Sulphuric Acid well.

"For the distribution of the Salt I constructed a special machine. It consists of a square box sieve of perforated zinc, mounted on wheels with an automatic action, so arranged as to communicate to the sieve a jolting motion when drawn along the walk.

"The weeds on the walks consisted of grass, spargula, and small varieties of moss, &c.

"From time to time I will report the result of the experiments, and shall be happy to make trial of any other agents recommended."—W. SOWERBY, *Secretary, in Quarterly Record of Royal Botanic Society.*

ROSE SHOWS.

DURING the past month Rose Shows have been the order of the day. We cannot refer to a tithe of those which have taken place, but we may state as a fact that they have generally been good shows, the flowers, under the influence of generous rains and the somewhat advanced temperature, having very greatly exceeded their early promise. We propose to notice a few of the winning stands at the principal metropolitan shows, and shall take them in the order of their dates.

MANSION HOUSE SHOW.

The display was held in the Egyptian Hall and its approaches, and was a new departure in Rose-showing. Instead of the intensely formal lines of flat boxes the flower-stands were grouped in masses of varied size and form, with the best possible effect, the whole arrangements reflecting the highest credit on the good taste of Mr. J. Forsyth Johnson, under whose control they were carried out. The show took place on June 30th. It was not exactly a competitive show, beyond the distribution of a few amateurs' prizes; on the contrary, cut Roses in large numbers were freely contributed by most of the great growers, and were put up with more regard to picturesque effect than is usual. Two groups, one of Fuchsias the other of Begonias, from Messrs. Cannell & Sons, set up at the two ends of the Hall, formed charming additions to the picture. The chief of the Roses came from the two Messrs. Paul & Son, Turner, Cant, Keynes, Prince, Rivers, Cooling, Rumsey, Cannell, House, and Francis, and a large quantity of other cut flowers came from the Swanley Nursery. Altogether this incursion of the florists into the heart of the City was a splendid victory for Flora, the more so that the object of the show was beneficent, and the Royal Hospital for Women and Children the principal *bénéficiaire*.

CRYSTAL PALACE SHOW.

At Sydenham the rose growers mustered in force on July 1st, and a very capital show was the result. The trade classes, which contained the finest blooms, were exceptionally well filled, the flowers being remarkable for their uniformly high quality. In the leading class for 72 singles (1 truss), Mr. B. R. Cant, who had the best flowers, was, unluckily, disqualified through an accidental mistake in staging two blooms of Madame Nachury, but the flowers were so good that an extra prize was given to them. The 1st prize went to Messrs. Paul & Son, of Cheshunt, who staged splendid blooms of Madame Isaac Periere, Madame Charles Wood, Magna Charta, Marie Baumann, Mons. Noman, Ferdinand de Lesseps, Captain Christy, Etienne Levet, Madame Lacharme, Alfred K. Williams, Marie Finger, Prince Arthur, Duchesse de Vallombrosa, Comte Raimbaud, Mdle. Thérèse Levet, Masterpiece, Devoniensis, Xavier Olibo, Abel Grand, Camille Bernardin, Marguerite de St. Amand, Charles

Lefebvre, Madame Hippolyte Jamain, Marchioness of Exeter, Duke of Edinburgh, Emily Laxton, Sénateur Vaisse, La Duchesse de Morny, Countess of Rosebery, Exposition de Brie, Helen Paul, a new variety of great promise, the flowers large, globular, with fine petal, and of a delicate blush colour; Charles Darwin, Mdle. Eugénie Verdier, Général Jacqueminot, Egeria, Alfred Colomb, Madame Gabriel Luizet, Duke of Teck, Catherine Mermet, Beauty of Waltham, Souvenir de la Malmaison, Madame Nachury, Comtesse de Choiseul, a splendid reddish crimson rose; Le Havre, La France, Star of Waltham, Comtesse d'Oxford, Duchesse de Caylus, Centifolia rosea, Mdle. Marie Pernet, Madame Alice Dureau, John Stuart Mill, Madame Clémence Joigneaux, May Quennell, Comtesse de Serenye, Horace Vernet, Clothilde Rolland, Duke of Wellington, Niphetos, Maurice Bernardin, François Michelin, Ferdinand Chaffolte, Mons. George Moreau, Mdle. Marie Rady, Mdle. Marie Cointet, Duchess of Bedford, Abel Carrière, La Fontaine, Madame Ducher, Penelope Mayo, and a seedling.

The 1st prize in the class for 48 trebles (3 trusses) went to Messrs. Paul & Son, who had thrown their chief strength into this class, the varieties being Duchesse de Vallombrosa, Camille Bernardin, Marie Baumann, Madame Lacharme, Captain Christy, Star of Waltham, Alfred K. Williams, the finest of the many splendid blooms of this excellent rose in the exhibition; Mons. Noman, Marie Finger, Ferdinand de Lesseps, Comte Raimbaud, La Duchesse de Morny, Madame Hippolyte Jamain, Xavier Olibo, Etienne Levet, Centifolia rosea, Egeria, Charles Darwin, Madame Charles Wood, Pride of Waltham, La France, Alfred Colomb, Charles Lefebvre, Emily Laxton, François Michelin, Prince Arthur, Exposition de Brie, Souvenir de la Malmaison, Elie Morel, Rosieriste Jacobs, Souvenir d'un Ami, Countess of Rosebery, Princess Beatrice, Maurice Bernardin, Annie Laxton, Mdle. Marie Cointet, Beauty of Waltham, Baroness Rothschild, Clothilde Rolland, Comtesse de Camando, a small crimson-scarlet flower of good quality; Madame Isaac Periere, Abel Carrière, Sénateur Vaisse, Mdle. Eugénie Verdier, Comtesse d'Oxford, Comtesse de Serenye, Mdle. Marie Rady, and Marquise de Castellane.

Of Tea-scented Roses very beautiful stands were shown. The 1st prize for nurserymen went to Mr. B. R. Cant, who staged fine blooms of Souvenir d'un Ami, Madame Caroline Kuster, Souvenir d'Elise Vardon, Madame Bravy, Rubens, Jean Ducher, President, Marie Van Houtte, Souvenir de Paul Neyron, Devoniensis, Innocente Pirola, and Madame Jules

Margottin. Tea-scented Roses were also admirably shown by amateurs, and in the class for twelve Mr. Harrington, gardener to E. Mitchell, Esq., Romford, was first with excellent blooms of Julius Finger, Catherine Mermet, Madame Sertot, Amazone, Marie Van Houtte, Madame Hippolyte Jamain, Souvenir d'un Ami, Souvenir d'Elise Vardon, Rubens, Madame Lambard, and Perle des Jardins.

For a collection of Crimson Roses Mr. B. R. Cant was first with fine blooms of Alfred K. Williams, Marie Baumann, Madame Alfred de Mesnil, Sénateur Vaisse, Duke of Teck, Dr. Andry, Dr. du Chalus, Dupuy Jamain, and Comtesse d'Oxford. He was also first for a collection of White Roses, with good blooms of Madame Bravy, Souvenir de Paul Neyron, Madame Willermoz, Souvenir d'Elise Vardon, Devoniensis, Rubens, Innocente Pirola, and Madame Lacharme.

Some good New Roses were shown, and 1st-class Certificates were awarded to Mr. H. Bennett, of Shepperton, for *Her Majesty*, figured by us in 1880, 12 blooms of which were exhibited; it is of the Baroness Rothschild type, but far superior to that or any other Rose of the same colour, which is a pale shaded pink or rosy-salmon, the flowers being globular, of large size, quite full, and of fine form; it will prove a grand acquisition to Rose exhibitors. Also for *Lady Mary Fitzwilliam*, a hybrid tea of a beautiful rosy-blush colour, the flowers globular, of great depth, and of good form, very beautiful when half expanded.

NATIONAL ROSE SOCIETY'S SHOW.

The exhibition of this Society took place at South Kensington on July 4th, and was a great success, being the finest show yet held under its auspices. The display being distributed over a considerable space, admitted of the flowers being seen by the visitors with greater comfort than usual, but the apparent fullness and importance of the show was in great measure neutralised owing to this dispersion. Both the Arcades were well filled.

In the nurserymen's class for 72 singles, Mr. B. R. Cant was placed first, with clean blooms, large in size and bright in colour, his best being Souvenir d'Elise Vardon, a flower of remarkable size and great purity; Baroness Rothschild, Etienne Levet, Alfred Colomb, Exposition de Brie, Ch. Lefebvre, Madame

Ducher, Madame Lacharme, Comtesse d'Oxford, Marquise de Mortemart, Duke of Edinburgh, Countess of Rosebery, Antoine Ducher, Souvenir d'un Ami, Mdle. Marie Rady, Madame C. Wood, Marie Baumann, Rubens, Marie Finger, Marchioness of Exeter, Ville de Lyon, Gloire de Vitry, A. K. Williams, John S. Mill, Clothilde Rolland, Le Havre, Ed. Morren, Louis Van Houtte, John Hopper, Marquise de Castellane, and Madame Eugène Verdier. For 36 trebles Messrs. Paul & Son came first, showing amongst others fine blooms of Capt. Christy, Etienne Levet, Marie Baumann, Niphetos, Paul Jamain, La Duchesse de Morny, Horace Vernet, A. K. Williams, Alfred Colomb, Madame Lacharme, Sénateur Vaisse, Marie Finger, Mons. E. Y. Teas, Charles Darwin, Dr. Andry, Le Havre, Comtesse d'Oxford, and Beauty of Waltham. For 18 Teas or Noisettes, a very good class, Mr. G. Prince came 1st, showing, amongst other good examples, grand blooms of Alba rosea, Amazone, Maréchal Niel, Souvenir d'Elise Vardon, Madame Marie Van Houtte, Adam, Mons. Furtado, Souvenir d'un Ami, and Rubens.

In the Amateurs' premier class for 36 singles, the 1st prize (augmented by a challenge trophy given by the trade, of the reputed value of 60 guineas, and to be held for one year) was taken by E. R. Whitwell, Esq., Baston Hall, Darlington, whose flowers were set up with good effect on a surface of black velvet, and consisted of La France, May Quennell, Madame Eugène Verdier, Charles Lefebvre, Mons. Noman, Marie Baumann, Abel Grand, Lord Macaulay, Madame Lacharme, Madame Charles Wood, Marguerite de St. Amand, Sir G. Wolseley, Baroness Rothschild, Duke of Teck, Marquis de Gibot, Marquise de Castellane, Xavier Olibo, Madame Prosper Laugier, Duke of Edinburgh, Madame Gabriel Luizet, Fisher Holmes, Mdle. Marie Rady, François Michelon, Duke of Wellington, Annie Laxton, Comtesse de Serenye, Madame Hippolyte Jamain, Prince Camille de Rohan, John Hopper, Dupuy Jamain, Duchesse de Vallombrosa, Le Havre, Princess Mary of Cambridge, Dr. Andry, Hippolyte Jamain, and Sénateur Vaisse.

In the class for 12 New Roses, not in commerce previous to 1879, which were staged in better condition than usual, Messrs. Paul & Son, Cheshunt, were 1st with good blooms of George Moreau, bright red; R. N. G. Baker, red; Souvenir de Madame Alfred Vy, deep red; Edouard André, red; George Baker, lake, shaded with cerise; Catherine Soupert, white, shaded with rose; Madame Isaac

Periere, peach; Madame Ducher, red, shaded with purple; Ferdinand Chaffolte, dark red; Countess of Rosebery, carmine-rose; Jules Finger, salmon-pink; and Rosieriste Jacobs, bright red, shaded with dark crimson.

The Silver Medal for the best bloom of a Hybrid Perpetual in the show, was awarded to Mr. Cant for a flower of Madame Gabriel Luizet; the Silver Medal for the best bloom of a Tea-scented variety to the same exhibitor for a flower of Souvenir d'Elise Vardon, a remarkably grand bloom; and the Silver Medal for the best Noisette was awarded to Mr. J. Walker for a bloom of Triomphe de Rennes. Amongst Yellow Roses, Mr. Prince's Jean Ducher took the first place, Mr. B. R. Cant's Marie Van Houtte the second, and Messrs. Curtis & Co.'s Maréchal Niel the third.

ALEXANDRA PALACE SHOW.

This show, which took place on July 8th, was, as compared with former years, comparatively limited, but nevertheless some good collections were staged by Mr. B. R. Cant, Messrs. Paul & Son, Mr. C. Turner, the Cranston Nursery Co., and Messrs. W. Paul & Son, the latter not for competition; as well as by several amateur growers, amongst whom E. R. Whitwell, Esq., and J. Wakeley, Esq., took the lead. One of the prettiest departments of the show was that devoted to bouquets, prizes being offered in separate classes for bouquets of white, pink, yellow, dark, and mixed Roses; and in these Mr. G. Paul and Messrs. Kinmont & Kidd were the winners of the principal prizes. There was a class for one thousand trusses of Roses, in which Messrs. Paul & Son were the only exhibitors. Though limited in extent, and lacking in high quality, the show was a very pretty one from the popular point of view.—T. MOORE.

GROS MAROC GRAPE.

A YEAR or two back Messrs. Rivers & Son exhibited before the Fruit Committee of the Royal Horticultural Society a large-berried Black Grape, called the Gros Maroc, the merits of which were at once recognised. I remember at the time the remark was made that it was a

wonder how it had come to pass that so good a Grape was not more cultivated by the great growers. Since that time I have grown and fruited it, and I must say that I am more than surprised to hear from time to time of so many recognised fruit-growers who do not even know the name. I myself consider it a most valuable addition to our fruit-houses, as it is a strong-growing Grape of vigorous constitution, very prolific, with fair-sized compact bunches, and very large berries. It is, without exception, the finest colouring Grape I know, and is worthy of a place in the most limited collections.—JOHN COX, *Redleaf*.

MILKY SICKNESS OF PLUM LEAVES.

AT this season of the year one often observes, both on wall and orchard trees, branches on which the surface of the leaves has become whitened as if milk had been poured over them. It is most assuredly an unhealthy symptom, and in fact marks a peculiar disease which in the first place makes itself manifest by the milky-white appearance above referred to, and subsequently results in the decay and death of the affected branch, and ultimately of the whole tree. The disease is very common on Plum-trees, but is by no means confined to them, being also met with in the Apricot, the Peach, the Almond, the Portugal Laurel, and other trees of the same affinity. Though most abundant on orchard trees and wall trees, its ravages are not confined to trees out-of-doors, since those grown under glass are sometimes also attacked.

The presence of the disease is not easily accounted for, as it shows itself in various localities, and under different conditions of soil and exposure; but no doubt seems to exist that it is the work of a fungus. This view is supported by an account given by the Rev. M. J. Berkeley (*Gard. Chron.*, N. S., xiv., 464) of some specimens sent for examination by Mr. Harrison Weir, of the trunk and roots of a Plum-tree so affected, which Mr. Berkeley describes as follows:—

“Two sections of a Plum-tree have been forwarded to us, affected with that milky appearance of the leaves which is due to the separation of the cuticle from the cellular tissue of the leaf. This affection is very common in Apricots, and occurs also in other

members of the same natural order. It is seldom so obtrusive as to render the destruction of the tree advisable, and therefore we are glad of the present opportunity of examining the sections. Only a very small portion of sound wood and bark remain to carry the proper quantity of sap to sustain life, and it is obvious that the necessary functions can only be very imperfectly performed. The causes of the condition of the stem may be various. One point observable in the sections is, that the heart-wood is decayed. The cause of this is fortunately clear enough, for since the arrival of the section, very carefully packed, and without any accession of moisture, there has been a plentiful development of the mycelium of *Polyporus ignarius*, a fungus which is so common and so destructive to Plum-trees. With the sections came roots from the side of the tree which was affected with the peculiar disease, and also from the unaffected side. In the former we find the wood of the thicker roots showing that foxy colour which is the indication of disease, and often the forerunner of fungus growth, as is well known in the case of Oaks which have been raised from old stumps; in both the young roots are either dying or so decomposed as to prognosticate death. All healthy tissue is soon, by contact with the affected part, highly diseased, and is not in a condition to carry pure sap, and without healthy sap we can scarcely expect healthy growth. The effect of the spawn is to cause the contiguous bark to split, and this soon appears outwardly, and is conspicuous even in small branches, an attempt being made at first to produce a new growth of bark."

In cases of this kind a close scrutiny of the leaves will show, as Mr. Berkeley observes, that the epidermis or skin of the leaf is separated from the subjacent tissue, a condition which seems to be brought about by shrinkage of the green cells, no doubt from defective nutrition. It is to this separation of the parts that the milky appearance of the leaf surface is to be attributed. When the disease thus manifests itself, unless it be checked, matters will go on from bad to worse, until first the branch and then oftentimes the tree will languish and ultimately perish.

It may be concluded, therefore, that when once a tree has become seriously attacked by this disease its case is hopeless; but if on the appearance of the first symptoms of the malady the tree or its roots are carefully lifted, and any affected parts judiciously pruned away, a new start being given to the healthy roots by adding fresh congenial soil, in which plenty of calcareous matter should be found, and if all traces of disease in the branches are also carefully excised, the wounds in both cases being dressed with a solution of corrosive sublimate or some other substance inimical to fungi, it is reasonable to expect that the consequences of the attack may be averted and the health of the tree restored. This over-

hauling of the roots should be done in the early autumn months, while that of the branches should be carried out as soon as its necessity is discovered.—M.

TIDINESS IN THE GARDEN.

IT has been said with more or less of truth that amateur gardeners are often, some even go the length of asserting generally, untidy. Probably this often arises from want of time or thought, and no doubt sometimes from a lack of capacity for sustained effort and constant painstaking care. For it is certain that there are few pursuits that demands more of those qualities than Horticulture. Fits and starts are out of place and character in regard to gardening, and can only result in disappointment and failure, but those who persevere unto the end can win success. And the gardener's work, like woman's, is never done, and very much for the same reason. Both alike have to do with life, and life can never brook neglect with impunity.

The want of perseverance speedily reveals itself in gardens. In some it is seen in intermittent crops or supplies—now a glut, anon a scarcity, by-and-by literally nothing. In other gardens it shows itself in weeds. To-day the whole garden under the inspiration of sudden spring weather is scrubbed or scarified rather clean and bare; not a weed, not even a seed-leaf is left. Within a few weeks the crops are lost sight of beneath a labyrinth of weeds that rule supreme over all the crops in the garden. In some gardens confusion reigns; the faculty of order seems totally wanting in their planning, planting, and furnishing. Flower-pots, watering-pans, wheelbarrows, and other tools encumber the walks, or are placed in the most prominent positions.

Leaving the open quarter and entering the conservatory or other glass-houses, expecting to find freshness, order, and beauty, you find dirty flower-pots, dead or dying plants, seeds in various states of dying and decomposition, flower-stakes, Russian or other matting; climbers dirty, drooping, or dying, where only a few months before there was a glare of flourishing bulbs, or the greenery of a fine houseful of bedding-out plants.

A little more tidiness and perseverance, and such houses might all be orderly and well-



furnished. A Vine, Tacsonia, or Maréchal Niel Rose on the roof would have furnished the latter with verdure, beauty, or utility, when the spring plants had disappeared. But in not a few cases where Vines or creepers have been planted on roofs, the good effects of them are neutralised by their untidiness, or the dirtiness of the stage, shelves, floors, or their occupants. Who shall measure what a cultured and refined taste has suffered from dirty pots and weeds in pots in the greenhouse or conservatory? Were such sights not so common, it would be impossible to believe in their existence, nor in the extraordinary perversity that will obtrude the worst of people's gardening, or the want of it, on their friends. But so it is in too many instances. One or two great efforts are made, a few successes scored, and then in too many gardens all is sheer disorder or black confusion for a great portion of the year.

It is seldom that these great efforts yield the most or the greater pleasure; but rather the every-day presence with us of cleanliness, order, and beauty, which can only be sustained in gardens by an industry that never wearies, a perseverance that never flags, and a cultured taste that disposes of everything, the least as well as the greatest, to the best advantage. Gardens thus managed are full of interest at all seasons, and yield some fresh harvest of interest and of beauty every day in the year.—D. T. FISH, *Hardwicke*.

PLUM, HARRIET.

[PLATE 568.]

WE have to thank Mr. T. Francis Rivers for the specimens of this admirable new Plum represented in the accompanying plate. It is a seedling not yet distributed, of a very fine Gage which will be sent out as soon as a sufficient stock is obtained. Of the beauty of the fruit our picture is a sufficient illustration, while of its high quality we can bear evidence.

The specimens figured were received by us early in September last, and the following are the descriptive notes made at the time:—*Young wood* pubescent. *Fruit* round, somewhat depressed, large for its class, measuring $1\frac{8}{10}$ inch in diameter, the stalk inserted in a deepish basin, which is connected by a distinct

shallow suture with a depression at the apex. *Skin* deep Indian yellow, freely speckled or marbled with red on the sunny side, and covered with a slight bloom. *Flesh* yellow, firm, parting from the stone, juicy, rich and sugary, with a sprightly flavour.

We are informed by Mr. Rivers that it is later than the Transparent Gage—one of the best of plums—and a better bearer. It will therefore be an acquisition of some value to our collections of hardy fruits.—T. MOORE.

REGISTER OF NOVELTIES.

NEW PLANTS.

ÆRIDES ILLUSTRIS, *Rehb. f.* (*Gard. Chron.*, N. S., xviii., p. 71.)—Grand and glorious, imported by Messrs. Low & Co., and selected out of an importation of *A. crispum*. It has very broad and short leaves, with few dark spots, and an inflorescence of 25 flowers; the flowers are large, the sepals and petals broad with a lilac flush on the white, and but few blotches, the lip conspicuous for its fine amethyst purple, with the longitudinal marks at the base which form the characters of *A. maculosum*.—Sir T. Lawrence.

ÆRIDES LAWRENCEANUM, *Hort.*—A very handsome species of the *Schroderi* type; it has narrowish linear leaves, and drooping spikes of large white flowers with a bold convex scoop-shaped lip of a bright magenta rose colour; 1st-class Certificate R.B.S., July 5.—Sir Trevor Lawrence.

BEGONIA GOEGOEENSIS, *N. E. Brown* (*Gard. Chron.*, N. S., xviii., p. 71.)—A handsome species allied to *B. peltata* (*B. hernandiæfolia*, B.M., t. 4676) and introduced from Goegoe, in Sumatra. It has a short creeping stem, with peltate orbicular-ovate 6—7 nerved bullate leaves, of a dark green with bronzy reflections; petioles erect 3—4 inches long, 3-angled; the flowers are in monœcious cymes, the sepals rosy pink the petals white; “only the last flower on each ultimate division of the cyme is female; all the others are male”; 1st-class Certificate R.H.S., July 25.—Veitch & Sons.

BEGONIA SOCOTRANA, *Hook. fil.* (*Bot. Mag.*, t. 6555.)—A dwarf species of remarkable interest, discovered in the island of Socotra, by Dr. I. B. Balfour. It is of neat habit, with orbicular peltate leaves 4—7 inches in diameter, and producing a profusion of bright rose-pink flowers, two inches in diameter; altogether having much resemblance to a *Pelargonium*; it is of very free blooming character, and blossoms in the depth of winter; 1st-class Certificate R.H.S., Nov. 8, 1881.—Veitch & Sons.

CALANTHE TEXTORI, *Miq.*—A very pretty and distinct plant, with the habit of *C. veratrifolia*, with plaited leaves, and tall scapes bearing racemes of blush-white flowers having a crimson spot in the centre, the lip changing to pale yellow; 1st-class Certificate R.B.S., July 5.—Sir Trevor Lawrence.

CATTLEYA GIGAS ALBO-STRIATA, *Hort.*—A pretty variety of this fine Orchid, with the flowers in the plant exhibited smaller than in the type, but remarkable for having the sepals and petals marked with a distinct white central bar or stripe on a blush ground-colour; 1st-class Certificate R.B.S., July 5.—H. James.

CATTLEYA GIGAS GRANDIFLORA, *Hort. Williams*.—A magnificent variety with remarkably large flowers, having rich rose pink sepals and petals, and a very highly and beautifully coloured lip, the upper part white edged with bright magenta; 1st-class Certificate R.B.S., July 5.—B. S. Williams.

CONANDRON RAMONDIODES, Sieb. et Zucc.—A very interesting herbaceous perennial introduced from Japan. It has a small globose tuber, from which springs one or more stalked ovate-oblong, coarsely-serrated dark green rugose leaves; while the flowers are borne on leafless scapes in a forked corymbose cyme, which is at first drooping, and are rotate, pinkish, with a sub-globose whitish tube internally spotted with yellow; it is remarkable as a regular-flowered Gesneriad.—Veitch & Sons.

CRATEGUS PYRACANTHA LALANDEI, Hort. (Rev. Hort. Belg., viii., 145, with. tab.).—A variety of the *Pyracantha*, having similar spiny branches, oblong-lanceolate semievergreen leaves, and clusters of bright orange-red berries, but instead of becoming naked as it gets old, this variety continues to produce strong vigorous shoots well furnished with healthy foliage, in which respect it is much superior to the common *Pyracantha* for the decoration of the garden during the winter season.

CROTON AUREO-MARMORATUS, Hort. Veitch.—A variety with long lanceolate leaves, the older ones very freely marbled with yellow, the younger ones almost wholly yellow; 1st-class Certificate R.B.S., July 5; R.H.S., July 11.—Veitch & Sons.

CROTON BRAGÆANUS, Hort. Veitch.—A variety of graceful habit, having long pendulous, linear-lanceolate leaves, 18—21 inches long, the coloration being extremely varied; many of the young leaves are pale yellow, marbled and mottled with light green, others are green spotted with golden yellow; the mature leaves are deep olive-green, spotted and speckled in many ways with bright yellow of various shades, and having crimson midribs; dedicated to Senhor José Terceiro Da Silva Braga, a distinguished Portuguese amateur.—Veitch & Sons.

CROTON BRUCE FINDLAY, Hort. Williams.—A bold and handsome *Croton*, with large oblong-obovate leaves, freely variegated with yellow on the lines of the costa and principal veins; 1st-class Certificate R.B.S., July 5.—B. S. Williams.

CROTON CRONSTADTII, Hort. Veitch.—One of the singular varieties which have the curious twistings and interruptions frequently manifested in the leaves of this race of plants developed in a very striking manner; the leaves are of medium size, lanceolate, twisted, curled, and crisped, and tapering to a sharp point; in colour they are of a deep glossy green variegated with bright golden yellow; a distinct and interesting decorative plant; 1st-class Certificate R.H.S., Dec. 14, 1880.—Veitch & Sons.

CROTON DAYSRING, Hort. Veitch.—A fine showy variety having the oblong elliptic leaves orange-yellow edged with dark green, the yellow parts becoming tinged with red in the older leaves; effectively variegated; 1st-class Certificate R.B.S., July 5; R.H.S., July 11.—Veitch & Sons.

CROTON PRINCESS OF WALDECK, Hort. Williams.—A handsome and effective variety of the *Disraeli* type, with broadly lance-shaped leaves about 4 in. long, the central portion of a bright clear yellow, with a broad and distinct margin of deep green; 1st-class Certificate R.H.S., June 27.—B. S. Williams.

CROTON RUBRO-LINEATUS, Hort. Veitch.—A noble plant with spreading oblong-lanceolate leaves, 12—15 inches long, which when first expanded, are pale yellow and green, many of them tinged with rose, but deepening with age to golden yellow and olive-green, the midribs and nerves, and in many cases the margin also, becoming crimson; 1st-class Certificate R.B.S., July 5; R.H.S., July 22, 1881.—Veitch & Sons.

DAVALLIA TENUIFOLIA VEITCHIANA, Moore.—A very finely divided feathery-looking form of the species, brought by Dr. Veitch, after whom it is named, from China. It is of free spreading habit, and forms a very elegant evergreen specimen; 1st-

class Certificate R.B.S., July 5; R.H.S., July 11.—Veitch & Sons.

DICKSONIA CHRYSOTRICHIA, Moore.—A fine arborescent stove fern, from Java. It has a stout trunk with a noble head of fronds, which are bipinnate, the pinnae 12—18 inches long and 6—9 inches broad, the pinnules linear cut down into linear-oblong toothed segments, the fertile ones slightly contracted; the main rachis has a thick coat of shining yellowish-brown hairs; 1st-class Certificate R.B.S., July 5th.—Veitch & Sons.

DRACENA LAINGI, Hort. Veitch.—A free-growing hybrid of cheerful aspect, rendered so by the various shades of light colouring with which its leaves are variegated. The leaves are 8—10 inches long and 2—2½ inches broad, the latest formed pale green with broad bands and margins of creamy white faintly tinged with rose, the older ones deeper green bordered with crimson and white; it is of robust habit, and likely to be useful for decorative purposes, as it bears changes of temperature better than many other kinds.—Veitch & Sons.

DRACENA THOMSONIANA, Hort.—A fine bold erect-growing stove plant with the habit of *Cordyline*, having a head of long bright green leaves; it comes from the West Coast of Africa; 1st-class Certificate R.B.S., July 5.—Veitch & Sons.

GLOBBIA ALBO-BRACTEATA, N. E. Brown (Gard. Chron., N. S., xviii., 71).—A curious and interesting zingiberaceous stove herb, with brown-purple stems 2½ feet high, each bearing 7—8 ovate-lanceolate green leaves 4—5 inches long; the flower stems terminate in a lax panicle of flowers of which the axis, branches, bracts and bracteoles are white; the calyx also is white, and the corolla yellow; from Sumatra.—Veitch & Sons.

LYCASTE DEPPEI PUNCTATISSIMA, Rehb. fil.—A handsome and distinct-spotted flowered variety, remarkable for the colouring of its sepals, which are of a whitish green and thickly marked with small dark purple dots, the yellow lip having radiating purple lines; it comes from Guatemala; 1st-class Certificate R.B.S., July 5.—B. S. Williams.

OSMUNDA JAPONICA CORYMBIFERA, Moore.—A tasselled variety of the Japanese form of *Osmunda*, analogous to our *O. regalis*. This Japanese form, called *O. speciosa* by Wallich, is deciduous, and produces frequently but not universally separate fertile fronds. The new variety is a very elegant tufted-growing plant, with the apices of all the pinnae and pinnules multifidly branched. The separate fertile fronds also come multifid at their apices; 1st-class Certificate R.B.S., July 5; R.H.S., July 15.—Veitch & Sons.

OSMUNDA JAVANICA, Blume.—A very distinct evergreen stove fern with erect tufted leathery fronds, 1—2 feet high, pinnate, the lower or central pinnae fertile, the barren pinnae lanceolate 4—8 inches long, euneate at the base, the edge either entire or toothed; the fertile pinnae are shorter made up of numerous oblong sessile clusters of spore cases; 1st-class Certificate R.B.S., July 5; introduced from Java.—Veitch & Sons.

PAPHINIA RUGOSA, Rehb. f.—A remarkable and attractive Orchid of dwarf growth, with very small terete furrowed pseudobulbs, thin linear acuminate leaves, and a pendulous raceme of two large flowers of a waxy appearance, the colour a creamy white, covered with red spots, which now and then become confluent; it comes from New Grenada; 1st-class Certificate R.H.S., June 27.—B. S. Williams.

PHACELIA CAMPANULARIA, A. Gray (Gard. Chron., N. S., xviii., 51).—A beautiful hardy annual, forming a spreading branched tuft 6—8 inches high and a foot across. It commences to flower while quite small, and goes on flowering nearly the whole of

the summer. The leaves are stalked roundish-oblong and crenately toothed. The flowers are produced in one-sided racemes, each about three-fourths of an inch long and twice as broad as in the old *Whitlavia grandiflora*, being more pelviform than campanulate; the colour is an intense gentian blue with a white oblong spot at the base of each sinus; California; 1st-class Certificate R.H.S., July 25.—W. Thompson.

PLEOPELTIS FOSSA, *Moore*.—A very distinct and pleasing evergreen fern from the Eastern Archipelago. It belongs to the net-veined group of Polypodiace called *Pleopeltis*, and has fleshy simple recurved fronds which are more or less incise-lobate at the margin, and bear a single row of deeply sunk sori on each side near the midrib; its recurving habit seems to fit it for basket culture, under which circumstances it forms a welcome addition to our exotic ferns; 1st-class Certificate R.B.S., July 5; R.H.S., July 11.—Veitch & Sons.

PODOLASIA STIPITATA, *N. E. Brown* (*Gard. Chron.*, N. S., xviii., 70).—A Bornean *Arad*, having a short caudex supporting 4—6 bright green sagittate or hastate leaves on terete green petioles a foot high; and a peduncle shorter than the petiole, supporting a boat-shaped brownish-red spathe, 3—4 inches long, exceeding the spadix which has a green stipe, and in the floriferous part is cream-coloured; 1st-class Certificate R.B.S., July 5, as *Lasia stipitata*; R.H.S., July 11.—Veitch & Sons.

RHODODENDRON BALSAMINIFLORUM AUREUM, *Hort.*, see p. 107.—A fine variety of the hybrid javanico-jasminiflorum section, with clear yellow semi-double blossoms, fine and effective; 1st-class Certificate R.H.S., July 11.—Veitch & Sons.

RHODODENDRON BALSAMINIFLORUM ALBUM, *Hort.*—Flowers pure white, double, and as in the case of the foregoing borne in the form of large terminal clusters; 1st-class Certificate R.H.S., July 11.—Veitch & Sons.

SELAGINELLA GRANDIS, *Moore* (*Gard. Chron.*, N. S., xviii., 41, figs. 7, 8).—This is one of the finest of the club-mosses, and is remarkable for its clear green colour, and the breadth of its densely leafy branches; it has creeping stems by which it extends itself, and from those grow up the leafy fronds which are 1—1½ foot high, triangular ovate, decurved, dichotomously ramose, the branches clothed with oblong-subfalcate crowded leaves, and the terminal branchlets ending in the small tail-like amenta 1—1½ inch long; it comes from Borneo; 1st-class Certificate R.H.S., May 23, as *S. platyphylla*; R.B.S., July 5.—Veitch & Sons.

NEW FLOWERS.

BEGONIAS (TUBEROUS-ROOTED).—*A. F. Barron*, a very fine single-flowered variety of a rich crimson colour, extra fine; 1st-class Certificate R.H.S., July 11. *Mrs. Stevens*, a fine branching habited variety with large showy flesh-pink flowers, freely blooming; 1st-class Certificate Chiswick, July 7. *Thomas Moore*, dwarf, stocky, free growing and free blooming, with the flowers thrown well up and nearly circular, pure carmine-scarlet; quite novel in character; 1st-class Certificate Chiswick, July 7.—All from the Royal Horticultural Society.

CHRYSANthemum, *La Petite Marie*.—An early flowering summer variety of dwarf growth, with large white flowers, very freely produced, extra fine; 1st-class Certificate R.H.S., July 11.—T. S. Ware.

GAILLARDIA, *picta Lorenziana*.—A Continental variety, the flowers formed wholly of quilled florets coloured as in the case of *G. picta*, very distinct and novel; 1st-class Certificate R.H.S., June 27.—Carter & Co.

GLOXINIAS.—*Mrs. Atkinson*, a very beautiful variety of the erect-flowered section, white ground profusely spotted with small dots of purple, and with

a broad violet-purple band round the throat, extra large and fine; 1st-class Certificate R.H.S., June 27.—J. Hudson. *Major Mason*, a very fine erect-flowered variety, the flowers large, the throat white, the limb clear purple shading off to pale purple near the edge; 1st-class Certificate R.H.S., July 7.—Royal Horticultural Society.

GODETIA, *Duchess of Albany*.—A pure white variety of the *G. Whitneyi* type, the flowers borne in dense clusters; a very acceptable hardy annual; 1st-class Certificate R.H.S., July 11.—Daniels Bros.

LANTANA, *Phosphor* (Lemoine).—A charming golden-flowered variety, of very dwarf habit, and remarkably free-flowering; the colour is a pure and unchanging golden yellow; 1st-class Certificate Chiswick, July 7.—Royal Horticultural Society.

LILIUM, *Thunbergianum cruentum*.—A fine and striking variety; colour a deep blood crimson, mottled and streaked with a deeper shade; one of the very finest of the group; 1st-class Certificate R.H.S., July 11.—T. S. Ware.

LILIUM (HYBRID), *Scott Wilson*.—A handsome form raised between *L. Washingtonianum* and *L. superbum*; partaking of the character of the first in its foliage, and of the second in the shape of its flowers, which are of a pale orange-red colour copiously spotted.—G. F. Wilson, Esq.

PANSY (DOUBLE), *Lord Waveney*.—Large and full double purple flowers; likely to be very useful for cutting from; 1st-class Certificate R.H.S., July 11.—H. Cannell & Sons.

PELARGONIUMS (SHOW).—*Diadem* (Foster), clear orange-salmon lower petals, veined with maroon, rich glossy dark upper petals, white throat; fine form; 1st-class Certificate Pel. Soc., June 27. *Morning* (Foster), lower petals orange crimson, veined with dark, dark top petals; very bright and effective; 1st-class Certificate Pel. Soc., June 27. *Royal Review* (Foster), orange-salmon lower petals veined with orange carmine, large dark top petals, fine form and bold pip; 1st-class Certificate Pel. Soc., June 27.—All from C. Turner.

Of Fancy varieties:—*Flossie Thompson*, rosy paling to pink on the margins of the petals, white throat; novel and distinct; 1st-class Certificate Pel. Soc., June 27.—*Irene*, blush lower petals, with slight bright rose spots, pink upper petals blotched with rose; very pretty.—Both from C. Turner.

Of Decorative varieties:—*Comtesse de Choiseul*, delicate blush white, with slight rosy purple blotches on the top petals, fine form, very free and pleasing; 1st-class Certificate Pel. Soc., June 27.—H. Little and C. Turner. *Lady Brooke*, a free-flowering variety with bright purple flowers pencilled with purple crimson; 2nd-class Certificate R.H.S., June 27.—W. H. Stacey. *Little Pet*, pale orange carmine with dark top petals, small flowered, very free; good habit; 1st-class Certificate Pel. Soc., June 27.—H. Little. *Madame Marie Knecht*, pure white, with slight rosy purple spots on the top petals, very free and fine; 1st-class Certificate Pel. Soc., June 27.—C. Turner. *Poiteau*, a very distinct and fine variety, colour pale purple, regularly blotched with dark, large and fine form, very distinct; 1st-class Certificate Pel. Soc., June 27.—H. Little. *Princess of Wales*, pale ground, veined and blotched with rosy-pink, semi-double, very fine; 1st-class Certificate Pel. Soc., June 27.—H. Little. *Vesuvius*, very bright orange scarlet, dark top petals; extra fine, very free and effective; 1st-class Certificate Pel. Soc., June 27.—W. Brown.

Of Nosegays:—*Miss Blanche* (George), pink, large trusses of finely formed flowers, good habit, very free; 1st-class Certificate Pel. Soc., June 27.—J. George.

Of Single Zonals the following:—*Edith Little* (Pearson), a beautiful hue of soft pink, large and finely

formed pip; extra fine; 1st-class Certificate Pel. Soc., June 27.—Pearson & Son. *Improved White Clipper*, a remarkably good pure white variety, very free, excellent habit; 1st-class Certificate Pel. Soc., June 27.—H. Cannell & Sons. *Lynette* (Denny), large and finely formed pip of a delicate blush pink colour, distinct and fine; 1st-class Certificate Pel. Soc., June 27.—J. Catlin. *Mrs. Gordon* (Pearson), rich bright pale scarlet, white eye, very fine and effective; 1st-class Certificate Pel. Soc., June 27.—Pearson & Son.

Of Double-flowered Zonals:—*Aglaia* (Pearson), crimson shaded with purple, large, full, and very fine; 1st-class Certificate Pel. Soc., June 27.—Pearson & Son. *Duchess of Albany* (George), soft rosy pink, large full flowers, very fine, good habit; 1st-class Certificate Pel. Soc., June 27.—J. George. *Gambetta* (Lemoine), rich glowing rosy scarlet, large and very fine; 1st-class Certificate Pel. Soc., June 27.—H. Cannell & Sons. *Grand Chancellor Faidherbe*, dark crimson, large and full, fine bold pip and truss, very free; 1st-class Certificate Pel. Soc., June 27.—H. Cannell & Sons. *Lovely* (Denny), a salmon-tinted variety, large and finely formed flowers, dwarf and free; 1st-class Certificate Pel. Soc., June 27.—J. Catlin. *Urania* (Pearson), rosy pink, large well formed flowers, extra fine truss, good habit and very free; 1st-class Certificate Pel. Soc., June 27.—Pearson & Son.

Of the Ivy-leaved section:—*Comte Horace de Choiseul* (Lemoine), semi-double, soft pinkish rose, large and loose, very distinct, and fine; 1st-class Certificate Pel. Soc., June 27.—Royal Horticultural Society.

RESEDA ODORATA, *Golden Queen*, a vigorous growing variety, of dwarf bushy habit, with spikes of flower of ample size, and remarkable for having the anthers of a golden yellow colour, which gives the plant when seen in a mass a distinctly golden hue; in every way a fine handsome and distinct mignonette, and very sweet; 1st-class Certificate Chiswick, July 7.—Carter & Co. and others. *Pyramidalis grandiflora*, a remarkably fine mignonette, forming massive pyramidal spikes, with orange-red anthers to the flowers; good robust growth; 1st-class Certificate R.H.S., June 27.—Vilmorin-Andrieux & Co.

ROSE (H.P.), *Duchess of Connaught*.—A beautiful and distinct new rose of a rich crimson colour, very free and an excellent bedder; 1st-class Certificate R.H.S., July 11.—C. Noble.

ROSE, *Lady Mary Fitzwilliam*.—A new pedigree variety with large full and handsomely shaped flowers of a delicate pink colour; very soft and pleasing; extra fine; 1st-class Certificate R.H.S., June 27.—H. Bennett.

ROSE (H.P.), *Queen of Queens*.—A beautiful light silvery-pink Rose, with large full globular flowers of great beauty.—W. Paul & Son.

NEW FRUITS.

MELONS.—*Lockinge Conqueror* (Gard. Chron., N. S., xvii., 704): a cross between the white-fleshed Hero of Lockinge and the scarlet-fleshed Hero of Bath; it is of large size, roundish in form, beautifully netted, scarlet fleshed, and exquisitely flavoured. Raised by Mr. J. Atkins, of Lockinge Park Gardens, Wantage, and a good addition to this class of melons. *William I.*: a good and novel variety, a cross between Read's Scarlet-flesh and Queen Emma; the fruits are round and finely-netted, scarlet-fleshed and of excellent flavour; 1st-class Certificate R.H.S., May 23.—C. Howe.

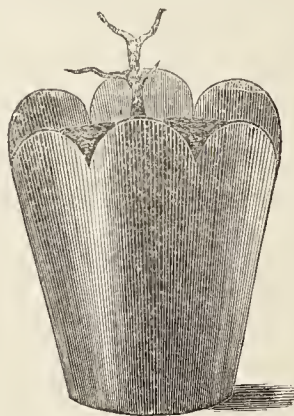
PEACH, *Alexander* (Gard. Chron., N. S., xvii., 704, fig. 109).—An American Peach, which has been fruited very successfully this year by Mr. Rivers, and which appears to be the earliest variety in cultivation, ripening in a cold orchard house a week

earlier than Early Beatrice, and being twice as large as that variety.

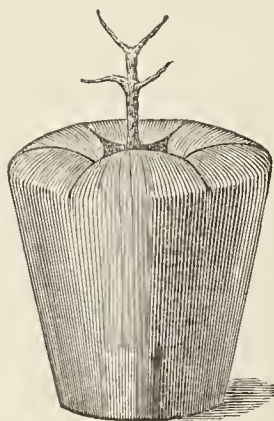
STRAWBERRY, *Reine Marie Henriette*.—This variety, which has been dedicated by special permission to Her Majesty the Queen of the Belgians, was raised in 1877 by M. L. Haeck, an amateur strawberry grower of Destelbergen, near Ghent. The fruit is large, cockscomb-shaped or conical, bright red, with prominent seeds; the flesh is rosy-white, firm, juicy, slightly acidulated, and perfumed, an excellent and prolific variety, of vigorous habit, and remarkably early and fertile, well adapted for forcing, and also for general cultivation.—M. Ed. Pynaert-Van Geert.

NEW GARDEN APPLIANCES.

TEBBS' UNIVERSAL TRAVELLING POT.—Though not exactly new, this is a modern contrivance, and comparatively little known. It is however, for packing plants, one of the most useful appliances we have seen. It is a patented article, not expensive,



made of brown paper, lined with a waterproof composition, and offered in several sizes from 2½ to 6 inches diameter, corresponding to those of earthenware flower-pots. When used, the plants are turned out of the ordinary pots and dropped into paper pots of corresponding size, and the marginal lobes being



folded down, are ready for packing closely into ordinary boxes or baskets in the usual way. Not only are the roots thus carefully secured, and space economised, but the weight of the ordinary pot is got rid of, by which means one important item, cost of carriage, is greatly reduced. The advantages claimed are that plants put into these pots are more portable, and may be packed and transmitted at less cost and less risk of breakage than when sent in the ordinary flower-pot—advantages which may doubtless be admitted. The figures show the pot and the plant after being placed therein, in one case with the margin open

ready for carrying to market or by hand, and in the other closed down ready for close packing for long journeys.

NEW PUBLICATIONS, ETC.

The BOTANICAL MAGAZINE (July) contains plates of the following plants:—*Columnnea Kalbreyeri*, Hook. f. [t. 6633], a superb Gesneriad noticed at p. 26; it has shining leaves, red beneath, in unequal distichous pairs, the larger one elongate oblong, 12—18 in. long, the flowers in axillary leafy cymes, golden yellow, with yellow green bracts.—Veitch & Sons. *Arisarum proboscideum*, Savi [t. 6634], an Italian Arad, with obtusely sagittate leaves, and erect cylindrical greyish-white spathes, ending in a long olive-green tail.—Kew. *Tulipa Borszczowi*, Regel [t. 6635], a Central Asian Tulip 6—12 inches high, with lanceolate glaucous leaves, and campanulate flowers with oblong cuspidate yellow segments, bearing a small deltoid red-brown spot at the base, the three outer ones flushed with red exteriorly.—Kew. *Streptocarpus parviflora*, E. Meyer [t. 6636], a South African herb, with numerous erect ohlong or lanceolate-oblong rugose leaves, and slender scapes bearing several white flowers.—Cambridge. *Ponthiera maculata*, Lindl. [t. 6637], a Venezuelan terrestrial Orchid everywhere hairy, with linear-oblong acuminate leaves, and many-flowered spikes of pretty blossoms, of which the dorsal (lower) sepal is brown streaked with red, the lateral ones larger white dotted with brown, the petals yellow with red stripes, the minute lip also yellow.

The GARDENERS' CHRONICLE (June 24—July 15) contains:—*Nepenthes atrosanguinea*, Hort. (p. 826, fig. 125), an American cross between *N. Sedeni* and *N. rubra*, the pitchers distended below, cylindrical above, 6 inches long, reddish crimson spotted with yellow with broad fringed wings, the rim marked with red and black ridges; one of the richest-coloured varieties known.—Williams. *Odontoglossum astranthum*, Rehb. f. (xvii. p. 826, xviii. p. 40), a cool Orchid from Ecuador, with the star-like flowers pale sulphur marked with sepia brown streaks and blotches, the base of the column orange with reddish purple spots.—O. Schneider, Esq. *Odontoglossum vexillarium Wiotianum*, Rehb. f. (xvii. p. 826, xviii. p. 71), a very fine variety, with a beautiful white lip with a light yellow base, and three short reddish purple lines in front; it has a light purple dot at each side of the base of the petal; near *O. vex. leucoglossum*; named after M. Wiot.—Jacob-Makoy & Co. *Pinus Bungeana*, Zucc. (xviii. 8, figs. 1, 2), the lace bark pine of China, a moderate-sized tree, the ovate obtuse cones of which have lately been produced in the Sheen nursery.—Kinghorn. *Cattleya Sanderiana*, Rehb. f. (p. 8), a very fine species of the labiata Warszewiczii type; it has columnar stems and very large flowers, the sepals and petals deep rose, the lip three inches across, with its great anterior blade wavy, with dark purple blotches on a brighter velvety ground, prettily grained with white, and with a large blotch at the mouth of the tube, whitish outside and yellow within, with pencillings of orange traversing the length of the throat.—W. E. Brymer, Esq. *Tulipa primularia*, Baker (p. 8), an Algerian species, of dwarf habit, with 4—6 linear green glabrous leaves, and funnel-shaped pale yellow flowers tinged with red over the back, and very sweet-scented.—H. J. Elwes, Esq. *Selaginella grandis*, Moore (p. 41, figs. 7, 8), the finest of all the Club mosses, having triangular-ovate fronds, with crowded oblong subfalcate bright green leaves, and slender tail-like amentes terminating the ultimate branches; Borneo.—Veitch. *Odontoglossum crinitum*, Rehb. f. (p. 40), a New Grenadan species in the way of *O. odoratum*, with dense one-sided racemes or panicles of pale yellow flowers, elegantly striped

and blotched, and having the triangular lip covered as if bearded with numerous filiform processes; the pseudobulbs are in the way of those of *O. crispum*.—J. Broome, Esq. *Saccolabium Hendersonianum*, Rehb. f. (p. 40), a Bornean variety, with light purple flowers, having a compressed white lip, with a blackish-purple callus on each side of the base of the column.—W. Lee, Esq. *Aërides expansum*, Rehb. f. (p. 40), formerly called *A. falcatum expansum*, being distinguished from the old *A. falcatum* by its more expanded lip, the acute side lobes of which with the lateral parts of the middle lobe bear large amethyst-coloured blotches, while the central and anterior portion of the latter is deep orange; spur red; leaves broader than in *falcatum*. The variety *Leonæ*, Rehb. f., has the side lobes of the lip blunt and retuse. *Podolasia stipitata*, N. E. Brown (p. 70), a Bornean Arad, with sagittate or hastate leaves, and a boat-shaped brownish-red spathe; more fully noticed at p. 123.—Veitch. *Globba albo-bracteata*, N. E. Brown (p. 71), a stove herb, having a lax panicle of flowers with a white calyx and yellow corolla; see p. 122.—Veitch. *Begonia goegoensis*, N. E. Brown (p. 71), a handsome species from Sumatra; see p. 121.—Veitch. *Ixora salicifolia variegata*, N. E. Brown (p. 71), a variety with a broad or narrow feathered silvery-grey band down the centro of the leaf; Sumatra.—Veitch. *Aërides illustre*, Rehb. f. (p. 71), a fine plant in the way of *A. maculosum*; see p. 121.—Veitch. *Hoya lasiantha* (p. 87), a Bornean species, with oblong leaves, and pendulous umbels of cream-coloured flowers, the petals of which produce at the base tufts of white silky hairs.—Veitch. *Hesperaloe yuccaefolia* (p. 87), a perennial with ohlong strap-shaped channelled leaves growing in tufts, and having the margin split up into thready filaments, and producing a long spike of cream-coloured flowers.

DIE FARNKRAUTER FÜR FELS-PARTIEN IN PARK-ANLAGEN UND GARTEN, von Carl Salomon, Garteninspektor at Würzburg (Leipzig: Hugo Voigt). This useful little book, which is illustrated by a frontispiece showing a rock fernery, and fifteen woodcuts representing some of the more popular species, forms a Handbook of Ferns adapted for cultivation in the climate of Germany. Some few of the introductory pages are devoted to a brief explanation of the organs of Ferns, and this is followed by a sketch of their classification, after which the genera are taken in alphabetical order, and the species admitted are briefly noted, their synonyms and geographical range being recorded. Some 251 species are thus treated, and there is also a supplementary list of over 100 greenhouse ferns which may be used on rockwork out of doors during summer. The publication, useful as it is, would be still more so if a brief description of each species were added.

HOT WATER HEATING, by F. A. Fawkes, F.R.H.S. (Batsford, High Holborn), is a handy little book by the author of *Horticultural Buildings*, giving a brief account of the general principles of heating garden structures by means of the hot water system. It is illustrated by numerous figures which usefully supplement the descriptions given. It has been prepared to meet the many inquiries for information addressed to the author as a hot water engineer; and consists mainly of a general description of the apparatus, with notes on the various parts, and directions for boiler setting, remarks on ventilation in connection with heating, and on the causes of failure, legal notes, &c. Altogether it is a thoroughly good shilling's worth.

The GARDEN (June 24—July 15) contains coloured figures of:—*Cypripedium insigne Maulei* and *C. punctatum violaceum* [p. 342], two grand varieties of a good old Orchid remarkable for the

purple spotting and broad white ground of the dorsal sepal; the figures, especially that of the var. *Maulei*, which is very correctly given in the *Floral Magazine* [i., t. 57], from the original plant, are not very happy portraits. *Kalmia latifolia* [pl. 343], from a drawing made by Mr. Bond, of Walcot Gardens, in 1830, when employed under Mr. Aiton, at Kew. *Pescatorea Klabochorum* [pl. 344], one of our modern group of fine showy Orchids, related to the Huntleyas and Bolleas. *Epigaea repens* [pl. 345], a charming North American trailing shrub, with tufts of pretty cricaceous flowers, which are tubular and five-lobed, with whitish tube and rosy pink limb; it is not generally found easy to cultivate, but prefers a shady sheltered situation, such as that afforded by a wood where the soil consists largely of decayed leaves, with a basis of sandy peat.

L'ILLUSTRATION HORTICOLE (6 liv.), figures:—*Azalea indica gardeniaeflora*, Lind. [t. 452], a very useful variety raised from seed in Mr. Linden's establishment; the flowers are compactly double like those of a *Gardenia*, moderate in size, white with a tinge of green in the centre; a good decorative plant. *A Town Garden* [pl. 453], from a design by M. Lasseau. *Anthurium Scherzerianum maximum* [pl. 454], a large variety, with spathes upwards of 8 inches long by about 4 inches wide, the spadix being large in proportion.

JOURNAL DES ROSES (July) has a figure of the *Tea Rose Safrano*, a charming variety, raised by an amateur rosarian, M. de Beauregard, of Angers, in 1839.

GARTEN-ZEITUNG (July) contains a coloured plate of *Papaver umbrosum*, which appears to be a garden name for *P. commutatum* of Fischer and Meyer; it is too near *P. Rhœas*, but is said to differ in the large and more central black spot on each petal, and its green pollen; introduced in 1875 (or possibly 1873) by Mr. W. Thompson, of Ipswich.

REVUE HORTICOLE (July 1—16) figures *Acalypha Macafeeana*, a handsome variegated-leaved stove plant from the South Sea Islands; and *Amaryllis Rougieri*, a showy flower of the *Aulica* type, introduced from Bahia.

REVUE DE L'HORTICULTURE BELGE ET ÉTRANGÈRE (July) figures the pretty hardy ornamental shrub, *Crataegus Pyracantha Lalandei*, for a notice of which see p. 122.

BULLETIN D'ARBORICULTURE (June) gives a coloured figure of the *Chancellor Peach*, a well-known September variety.

GARDEN GOSSIP.

THE thirty-ninth Anniversary Festival of the GARDENERS' ROYAL BENEVOLENT INSTITUTION took place on June 29th, at the Albion Hotel, Aldersgate Street. The Lord Mayor of London, Sir J. Whittaker Ellis, Bart., occupied the chair, and there was a large attendance of visitors, including the Belgian horticulturists who have lately honoured us by a collective visit to some of our exhibitions, and to various garden establishments public and private. In proposing "Continued success and prosperity to the Gardeners' Royal Benevolent Institution," the Lord Mayor said the importance of this toast was evidenced by the numbers and social status of the company present. The objects of the charity were, he thought, remarkably deserving of the attention of the gardeners of England, and by gardeners he meant not only those who did the actual digging and delving, but all who delighted in the beautiful art of gardening. They talked of the arts of painting and sculpture; but

what were they compared with the art of gardening? What was more delightful than to roam through a lovely garden? How many poets had derived their inspiration from contemplation of its flowers and its trees? Their object on that occasion was to encourage this art, and those who pursued it. Looking over the papers which had been placed in his hands, and observing that the society existed for the whole of England, he was surprised to see that no larger amount than £1,200 was able to be collected annually. He would have imagined, had he not seen these figures, that fifty times that amount might be collected from the masters and employers of gardeners in England. He was sure that with the exertion of a very little energy on their part they might secure the pecuniary support of many thousands of employers by representing to them that it was to their interest to become members of this society. He hoped that his successor in the chair of president would be enabled to announce that the renewed efforts of the society had resulted in a great increase in the funds, and that they had been able to assist not ninety-three, but nine hundred and thirty-three, distressed gardeners. The subscriptions announced by the Secretary amounted to over £600.

— THE Show of the NATIONAL CARNATION AND PICOTEE SOCIETY (Northern division) is to take place in the New Town Hall at Manchester on August 18th, under the presidency of Richard Gorton, Esq., of Eccles. The Schedule of Prizes has been printed, and may be had of the Honorary Secretaries, the Rev. F.D. Horner, Kirkby Malzeard, Ripon, or W. Bolton, Esq., Warrington.

— THE New Copper-coloured Rose W. A. RICHARDSON, which has been exhibited at the metropolitan rose shows, by Mr. Housso of Peterborough, is a very interesting and attractive variety, with a beauty of its own which in the bud state is scarcely surpassed in loveliness by any variety in cultivation. It bears but a small flower, and lacks altogether the qualities of a show variety, but if amenable to cultivation, it is a rose every one will be bound to grow for the sake of its charming copper-coloured buds, the beauty of which, being altogether unique, will render it in great request for cutting, whether to be used for flower stands, or bouquets, or button-holes.

— RESPECTING the TRENTHAM EARLY FILL-BASKET TOMATO lately figured by us, Mr. J. Douglas writes (*Gard. Chron.*, N. S., xviii., 14):—"I have no hesitation in recommending this variety as being the most useful in cultivation. It is one of the earliest of Tomatoes, and very free-bearing; the fruit is of good form, and the quality first-rate. I do not know any other variety that is so continuously prolific. We grow our Tomatoes in pots—a system of culture which has a tendency to cause a production of fruit in plenty for a short period, but not in succession; and yet the variety in question continues to bear wherever growth is made. I have not tried Early Fill-basket out-of-doors, but I fancy it would be well adapted for market garden purposes. Certainly I do not know any variety to surpass it for pot-culture under glass."

— WHAT is called a HARDY CAULIFLOWER has lately been mentioned in the *Gard. Chron.* (xviii., 47) as growing in the garden of Joshua Dickson, Esq., at Winslade, Exeter. Mr. Craggs, the gardener, claims for this variety that it

is perfectly hardy in any winter, however severe, having planted it out along with Cabbages for several consecutive winters, including the last. The Early London and Dwarf Erfurt melt away by the side of this variety in severe weather. If the variety behaves everywhere as it is said to have done in this case, gardeners will be glad to make its acquaintance as soon as possible. As seen at Winslade it is not a vigorous grower, and the heads are of moderate size, well-formed, solid, and apparently of first-rate quality.

— THE Princes Street Gardens in Edinburgh are to have a ROCK GARDEN UNDER GLASS, a patriotic lady, Mrs. Ross, having bequeathed £1,500 for the purpose. The design which has been prepared shows a series of three dome-shaped buildings, the central and largest of which is 60 ft. in diameter, and 47 ft. high. The smaller ones will be 37 ft. in diameter, and 30 ft. high, and they will be connected with the central building by corridors 32 ft. in length and 25 ft. in width. The superstructure, built of iron and glass, will have a frontage of 200 ft. The rockery is to consist of winding paths, caverns, recesses, and rugged projections studded with ferns and other suitable plants, the rockwork reaching a height of 15 ft. Outside the covered fernery, rockeries will be formed, and furnished with hardy ferns and plants.

— THE following new method of training Tomatos is from the *Gard. Chron.* (xvii., 834):

—As the public demand for English-grown Tomatos increases, the one-leader system will have to be given up, and the side-shoots more depended upon for a general crop. As a matter of fact the side-shoots are the most prolific, and if they do not bear the largest fruit, they produce the greatest quantity, and already the market growers are finding this out, and are very wisely altering their tactics. In one case the system now adopted is to plant out in a narrow border in front of a Cucumber house, and peg down the side-shoots upon the surface of the border, where they root in a short time, and have to be supported under the weight of their crops. Instead, therefore, of having long naked stems, we shall in future have a border covered with medium-sized shoots, and laden with fruits.

— THE ROOT PRUNING of Fruit-trees is a work that should be performed as soon as the wood is fairly hardened and the leaves matured. It cannot be too well understood, however, that much pruning of the tops and pruning of the roots are inimical to each other. Cutting off the roots means cutting off the supplies, and cutting off the branches means reducing the demand on the supplies. Consequently, a tree that has its roots and branches curtailed at the same time is in almost the same condition as it was before; and yet simultaneous root and branch pruning is the rule. Hence root pruning is a work that enters largely into the restrictive trainer's practice, without much visible advantage. Those who have very large or vigorous but barren orchard trees should use the knife at the roots, and let the tops alone. It is futile attempting to put fertility into an over luxuriant tree by reducing the number or extent of the branches.—(*Garden.*)

— THE new dwarf variety of CAPSICUM called LITTLE GEM, proves to be one of the prettiest of those grown for ornament. It has

lately been finely in fruit at the Victoria Nursery, Upper Holloway, from whence it was distributed. The plants form bushy, spreading tufts, 6—8 inches high, and each branchlet is laden with small, bright red fruit of the size of hazel nuts. For decorative purposes it will be found very useful.

— THE well-known DAVALLIA ELEGANS when grown as a pyramid, produces an effect at once pleasing and artistic, and indeed in this category it is entitled to a place in the first rank. It will creep over the surface of a pyramid clothing it from base to vertex with its charming evergreen shining fronds in a manner so natural as to elicit admiration. The fronds are borne upon stems from 6—9 inches long, which hang loosely from the framework in natural order, and thus it forms altogether an object of singular beauty for a sitting-room.

— WE learn that the partnership in the seed business hitherto carried on under the style of BARR & SUGDEN has now ceased; and that Mr. Peter Barr, the managing partner, has opened a business under the style of BARR & SON, at 34, King Street, Covent Garden. The new firm first put in an appearance in public at the National Rose Show at South Kensington on July 4th, and at the Royal Botanic Society's Show on the following day, when they set up an extensive and remarkably beautiful collection of hardy plants and cut flowers.

— AT the Royal Botanic Society's Evening Fête, the BEST ARRANGED TABLE, according to the opinion of the Judges, says the *Garden*, "was that from Mr. Walter Wood, of Conduit Street. This consisted of low, gilded bowls, round in form and about 4 in. deep. In the middle bowl was arranged a centre plant of *Cocos Weddelliana*, small plants of the graceful variegated *Eulalia japonica*, *Caladium argyritis*, and variegated Honey-suckles. Amongst these were dibbled in white *Gladiolus Colvillei*, yellow *Aquilegia chrysantha*, white, sulphur yellow and deep yellow Spanish Irises, white Marguerites, Welsh Poppy, and Ferns, all rising from a bed of moss. Two smaller bowls of the same pattern, placed a short distance from the centre, were filled similarly to the centre bowl, except the addition of a few pink Carnations put in here and there. The bowls placed at each of the corners were similar, and eighteen small ones (too many by half) filled with tiny Palms, Caladiums, and Ferns, were placed at intervals along the sides. The principal points of this arrangement were the simplicity of style and general harmony of tone of colour, which ran through the whole of the materials used."

— AMONG the many species of *Dianthus*, *D. barbatus*, the SWEET WILLIAM has long held and still holds a prominent position as a popular garden flower. Some few years ago it was taken up by one or two florists, especially by Mr. Hunt, of Wycombe, and considerable improvements in the size, colours, and smoothness of the flowers was the result. Since that time the work of improvement has slackened, perhaps because a tolerably good modern strain meets all the demands of the public. We have just received some fine cut blooms from Mr. W. Caudwell, of Wantage, among which were many striking flowers remarkable for their size—upwards of one inch across—and for their richly coloured markings of different shades of crimson and rosy-purple with white centre and margin; most of these being also smooth on the edge. They represent a

capital strain of Sweet Williams. With these were four fine doubles, a crimson, a purple, and two light-coloured sorts; these are good garden flowers on account of the durability of their handsome trusses of flowers. With the above came some meritorious Antirrhinums, double Canterbury bells, and annual tricolor Chrysanthemums.

— UNDER the name of ALSCHINGER'S LABURNUM, the *Gardeners' Chronicle* recently alluded to a pretty and very floriferous variety of laburnum—*L. Alschingeri*, a kind that should be in every garden in the kingdom. Nothing can surpass the elegance of this tree when in bloom; its flowers are a paler, more refined shade of yellow than the common variety; they are produced freely, the racemes being of extraordinary length—some measuring 18½ inches in length, not including the two or three inches of foot-stalk. Its branches become laden with these long bunches, as full apparently as the common variety, and it has the still further merit of not opening its flowers until the others are quite over. Waterer's Laburnum raised in the Surrey nurseries, agrees very closely with this description.

— THE Standard form is well adapted for both the CURRANT and the GOOSEBERRY. In this form they are not only beautiful objects when planted at intervals by the sides of the walks in kitchen gardens, but are extremely profitable and valuable for late use. The birds always leave them until the last, and when they do attack them the head of each tree can be easily enveloped with hexagon netting, and the fruit is then safe. The standard trees do not usually grow so luxuriantly as bushes, and they bear prodigiously. True, they need stakes to support them, and they are worthy of them. If standards were generally grown, they would not only add to the attractiveness of the garden, but what is more, the period of the fruit supply would be considerably lengthened; for it is certain that the fruit keeps better on standards than on bushes. The standards are easily formed, but it is a question of time to produce fine heads; select straight cuttings, and do not stop them until they are three feet high; all the lower buds must be scrupulously removed, or suckers will be troublesome; secure the leading growths to stakes and pinch the side shoots, and in due time fruitful miniature trees will be produced.—(*Journal of Horticulture*.)

— THE BORDER PINKS are amongst our most grateful June flowers, being remarkable at once for their showy character and their rich aromatic perfume. Mr. T. S. Ware sent us from Tottenham cut flowers of three of the best amongst the few distinct sorts which are grown; and though not new they are in every way worth a word of commendation. When grown in beds they form sheets of colour in the garden, as may have been seen during the past month of June at the Hale Farm nurseries. The varieties we specially refer to are: *Lord Lyons*, a bright magenta colour, large smooth and well-formed, the edges crimped; a prolific bloomer and very fragrant; one of the most striking pinks in cultivation. *Ascot*, a pleasing flower of a soft lilacy-pink, with dark carmine centre, the petals crimped at the edge, and rather crumpled, but of a pleasing colour. *Mrs. Sinkins* a large self white with fringed and rather crumpled petals, but forming a large full flower, and possessing a very rich clove-like perfume; it is, no doubt, the finest of all the white pinks, remarkably free-blooming, and hardy and sturdy in habit.

In Memoriam.

— RICHARD BARTON DODGSON, Esq., of Beardwood, Blackburn, died on June 13, aged 58 years. He was one of the most amiable and hospitable of the patrons of horticulture, according a hearty welcome to all lovers of flowers who paid a visit to his well-stored houses and garden. He was especially interested in Orchids, of which he had a very fine collection. The specimen Orchids sent from Beardwood to Manchester and other shows, where Mr. Dodgson has exhibited for many years, have always obtained high honours. His memory will be embalmed in the Orchids, especially Cattleyas, that have been named in his honour.

— MR. JOHN SHERRATT, for many years gardener to James Bateman, Esq., at Biddulph Grange, and subsequently senior partner of the firm of Sherratt & Pointon, of the Knypersley Nursery, Biddulph, died at Spring Grove, Biddulph, on June 20, aged 53 years. He was connected with the gardens at Knypersley Hall for nearly forty years. He commenced his gardening career when quite a lad, and was placed in charge while still quite young, from which time everything seemed to prosper in his hands, so that after a while the faithful servant became the trusted friend, and so continued to the day of his death. *Bletia Sherrattiana*, a very distinct terrestrial species named after him by Mr. Bateman, will perpetuate his memory amongst Orchid growers.

— MR. WILLIAM PERRY, for the last fifteen years gardener at Pen-Pole, Shirehampton, Bristol, the residence of C. H. Miles, Esq., died last month, aged 36 years. He was one of the most successful plant growers, including Orchids, in the western part of the kingdom, and was one of a band of gardeners resident in the neighbourhood of Bristol who have worked hard and successfully to promote horticulture in the district, as evidenced by the excellent displays at the spring and autumn exhibitions held at the flourishing old town.

— DR. SAMUEL NEWINGTON, of Ticehurst, died on July 3, in his 69th year. Dr. Newington's professional duties in the management of a large private lunatic asylum left him but little time for personal intercourse with the gardening fraternity, of which, nevertheless, he was one of the most active members, and a frequent contributor to the horticultural Press, his articles being marked by original thought, and based on comprehensive knowledge of vegetable physiology and plant-life.

— DR. GEORGE DICKIE, F.R.S., Emeritus Professor of Botany in the University of Aberdeen, died on July 15, at Aberdeen. Dr. Dickie was well versed in Highland Botany, and was one of the few British botanists who had an intimate knowledge of Algæ. He was the discoverer of *Cystopteris Dickieana*, which was named in his honour.

— MR. MATTHEW BROWN died at Old Trafford on July 18, aged 58 years. He was a member of the respected firm of Dickson, Brown, & Tait, seed-merchants, of Manchester.



LILIUM NITIDUM.

[PLATE 569.]

OUR figure of this beautiful and distinct-looking Lily was made in Mr. W. Bull's Nursery at Chelsea in July, 1880. To us it appears widely different from any other Lily of which we have seen either plants or illustrations, but Mr. H. J. Elwes, the monographer of the genus *Lilium*, tells us that he fails to find any character by which it may be separated from *L. columbianum*, his own plate of which, however, we may remark is very different from ours. The narrow erect habit of growth, and spicate arrangement of the flowers at least produce the appearance of diversity. Mr. J. G. Baker, another great authority on Liliaceous plants, though at first doubtful about the name, believing it to be a variety of *L. parvum*, was at the time when our drawing was made "quite satisfied as to the distinctness of the species," and he has since published a description in the *Gardeners' Chronicle* (N. S., xiv., 198), of which we gladly avail ourselves on this occasion.

The bulbs of *L. nitidum* are transversely oblong, oblique, subrhizomatous, with white

lanceolate acute scales, $1\frac{1}{2}$ inch long. The stem is 2— $2\frac{1}{2}$ feet high, of which the upper third forms the inflorescence; it is short, terete, smooth, purple below, green above, bearing several whorls of leaves, and others scattered above. The leaves are lance-shaped $1\frac{1}{2}$ —2 inches long, up to twenty in a whorl. The flowers are more spicate than panicle, upwards of a dozen spread over the upper portion of the stem; they have long spreading pedicels which are cernuous in the flowering stage, arcuately ascending when in fruit, the bracts becoming smaller upwards. The flowers themselves are small, nodding, with lanceolate recurved segments, which are rich golden yellow, copiously spotted in the lower half with reddish-brown dots; the yellow anthers on green filaments project about an inch, and the green style is about the same length.

Our figure will show that it is a very striking plant, highly characteristic in its narrow erect mode of growth, and singularly beautiful in the number and rich colouring of its flowers.—T. MOORE.

NATIONAL CARNATION AND PICOTEE SOCIETY.

WE annex, in the sequence of their holding, reports of the three great exhibitions of the two sections—Southern and Northern—of this Society. We are pleased to note the development of the Southern Section into two meetings, owing probably to the removal of Mr. Dodwell to Oxford, and shall be glad if this arrangement becomes annual. Every lover of the Carnation and Picotee will learn with satisfaction of the improved health of our friend, that he was thus enabled to undertake the work of organising the second show, and the prospect afforded that he may be spared for some years to come to follow his favourite pursuit.

Our notes on this occasion are brief, but we have the promise, before the year closes, of a notice of the general bloom from our friend, and this we are sure will amply make up for any seeming shortcoming on our part at the present. But some of the points of the meetings belong of necessity to the shows themselves, and on these we must remark.

In the very fore-front then we have to say the exhibitions were distinguished by peculiar excellence—that at South Kensington, on July 25th, indeed by an excellence almost unique in the meetings of the Society, for never, in the opinion of those best informed, were the productions of the three prominent growers of the flowers—Mr. Turner, Mr. Douglas, and Mr. Dodwell—in such splendid condition, or the competition so close. Those who like ourselves had an opportunity of critically examining the flowers, will sustain us in this opinion, and share in the satisfaction such an illustration of development given to skill and application affords.

Never did the Society hold a better show, and never was there a more genial or general gathering. This was repeated at Oxford, where on the 1st prox., the eve of the exhibition, the roof-tree of our friend Mr. Dodwell's cottage was warmed by a gathering of choice and genial spirits not easily to be forgotten. At the show next day, after the work had been gotten through, a luncheon party of upwards

of fifty, inclusive of ladies, sat down, by permission of the Warden, in the ancient Hall of Wadham College, under the presidency of the Worshipful the Mayor of Oxford, J. Jenkin, Esq., Mr. Samuel Barlow, of Stakehill House, Castleton, Manchester, filling the vice-chair. Our good friend and contemporary, Mr. Shirley Hibberd, the Rev. F. D. Horner, Mr. Barlow, and others, were in great force, and the result was a feast in a double sense of a very high order. Of the show itself we may say it was worthy the effort made to produce it. The unavoidable absence of the President, Mr. Llewelyn, and of Mr. Douglas, and their productions, was felt and regretted; but the cultivators from the Midlands and North Midlands came up in good style, and filled the gap with effect. The productions of Mr. B. Simonite indeed were remarkably fine, and ran Mr. Dodwell very close.

We were not able to be present at Manchester on the 15th, but we have it from a sure source that the meeting there was a great success, and no one acquainted with the energy and enthusiasm of the northern character will question the earnestness and purpose of their work.

On July 25th the judges were:—For the Open section, John T. D. Llewelyn, Esq., Mr. W. M. Hewitt, Mr. John Fraser, and Mr. Thomas Moore; for the Amateur division, Mr. Charles Turner and Mr. John Ball; for Single specimens, Mr. Ben. Simonite and Mr. Jas. Kirtland.

On Aug. 2nd:—Open classes, Mr. Thomas Moore, Mr. B. Simonite, and R. Gorton, Esq.; Amateurs, the Rev. F. D. Horner, Mr. John Ball, and Mr. Arthur Turner; Single specimens—Carnations, Mr. Robert Lord, and Mr. Joseph Lakin—Picotees, Samuel Barlow, Esq., and Mr. Jas. Kirtland.

On Aug. 15th:—Classes for twelve, and Single specimens, Rev. F. Tymons, Mr. E. S. Dodwell, and Mr. Jonathan Booth; Sixes, Mr. B. Simonite, and R. Gorton, Esq.

SHOW AT SOUTH KENSINGTON.

CARNATIONS.

Class A. 24 blooms, not less than 12 dissimilar.—1st, Mr. C. Turner, Slough, with Master Fred C.B., John Keet R.F., John Ball S.F., James Taylor P.P.B., Admiral Curzon S.B., Florence Nightingale P.F., Matador S.F., Rev. F. Tymons C.B., James McIntosh S.B., Mrs. Matthews R.F., John Hines S.B., and Jessica R.F.—a stand of remarkably fine and well-selected blooms. 2nd, Mr. J. Douglas, gardener to F. Whitbourn, Esq., Loxford Hall, with Robert Lord S.B., Florence Nightingale P.F., William Skirving P.P.B., Rob Roy R.F., Tim Bobbin R.F., Mephistopheles C.B., Joseph Crossland S.B., Sarah Payne

P.P.B., Sportsman S.F., John Keet R.F., Sporting Lass P.F., Arthur Medhurst S.B., Crimson Banner C.B., James Douglas P.F., Henry Cannell S.F., John Simonite C.B., and Apollo R.F.—fine well-developed blooms, which run the first prize lot very closely. 3rd, Mr. E. S. Dodwell, Stanley Road, Oxford, with Thomas Moore C.B., Harry Matthews S.F., Master Fred C.B., Florence Nightingale P.F., John Hines S.B., Seedling Rose flake, Master Fred C.B., Alfred Hudson S.B., Arthur Medhurst S.B., Seedling P.P.B., Sarah Payne P.P.B., Henry Cannell S.F., Harrison Weir C.B., Robert Lord S.B., Tim Bobbin R.F., John Ball S.F., Squire Llewelyn P.P.B., Curzon Sport S.F., Master Stanley S.B., James Merryweather R.F., Robert Lord S.B., Rifleman C.B., Arthur Medhurst S.B., and Florence Nightingale P.F.—a stand very little behind the two first, the blooms rather smaller, but fresh and good. 4th, Mr. J. Hines, Ipswich. 5th, Mr. H. Hooper, Bath.

Class B. 12 blooms, dissimilar.—1st, Mr. J. Douglas, with William Skirving P.P.B., Dreadnought S.B., Sarah Payne P.P.B., John Keet R.F., Florence Nightingale P.F., Sportsman S.F., J. D. Hextall, C.B., James Merryweather R.F., Earl of Stamford P.F., Admiral Curzon S.B., and Annihilator S.F.—fine flowers, well set up. 2nd, Mr. E. S. Dodwell, with James Douglas P.F., Henry Cannell S.F., Master Fred C.B., Harry Matthews S.F., Ben. Simonite S.B., Tim Bobbin R.F., Florence Nightingale P.F., Alfred Hudson S.B., Rifleman C.B., Curzon Sport S.F., Arthur Medhurst S.B., and Squire Llewelyn P.P.B.—a capital lot of blooms wanting only in size, as compared with the previous stand. 3rd, Mr. J. Hines, with John Ball S.F., Eccentric Jack C.B., Mrs. Matthews R.F., Rifleman C.B., Sarah Payne P.P.B., Mrs. Tomes R.F., Admiral Curzon S.B., James Douglas P.F., Squire Llewelyn P.P.B., and Florence Nightingale P.F. 4th, Dr. Abercrombie, Cheltenham. 5th, Mr. J. Buxton, Clapham. 6th, Mr. H. Cattley, Bath.

Class C. 6 blooms, dissimilar.—1st, J. P. Sharpe, Esq., Perry Barr, Birmingham, with Arthur Medhurst S.B., Sybil R.F., Florence Nightingale P.F., James Taylor P.P.B., Sarah Payne P.P.B., and a Seedling S.B. 2nd, Master Stanley Dodwell, Oxford, with Robert Lord S.B., H. K. Mayor P.P.B., Mrs. Gorton C.B., Master Stanley S.B., Florence Nightingale P.F., and James Merryweather R.F. 3rd, Mr. Wm. Slack, Chesterfield.

Class D. Single Specimens—Scarlet Bizarres: Mr. Douglas 1st and 2nd with Admiral Curzon, 3rd with Edward Adams; Mr. Turner 4th with Admiral Curzon, and 5th with Robert Lord.—*Crimson Bizarres:* Mr. Douglas 1st and 2nd with Rifleman; Mr. Turner 3rd with Rifleman; Mr. E. S. Dodwell 4th and 5th with H. K. Mayor.—*Pink and Purple Bizarres:* Mr. Douglas 1st and 2nd, Mr. Turner 3rd and 5th, Mr. Hines 4th, all with Sarah Payne.—*Purple Flakes:* Mr. Douglas 1st and 3rd with Earl Stamford, 2nd with James Douglas, 4th and 5th with Florence Nightingale.—*Scarlet Flakes:* Mr. Douglas 1st, 3rd, and 5th with Sportsman; Mr. Turner 2nd with Matador; Mr. E. S. Dodwell 4th with Scarlet Keet.—*Rose Flakes:* Mr. Turner 1st with Jessica; Mr. E. S. Dodwell 2nd with Tim Bobbin; Mr. Douglas 3rd and 5th with Rob Roy; R. Gorton, Esq., Eccles, 4th with Rob Roy.

The Premier Carnation was a fine bloom of Dodwell's *Robert Lord*, scarlet bizarre, staged by Mr. Douglas.

PICOTEES.

Class E. 24 blooms, not less than 12 dissimilar.—1st, Mr. C. Turner, with Mrs. A. Chancellor H.P., Baroness Burdett-Countess MED. P., Constance Heron H.S., Her Majesty L.P., Mrs. Bower L.R., J. B. Bryant

H.R., Lady Louisa H.R.O., Princess Dagmar H.P., Queen of Summer MED. R., Evelyn L.R.O., Clara Penson L.P., Portia H.P., Madame Corbyn H.R.O., John Smith H.R., Mrs. Payne H.R.O., Muriel H.P., Mrs. Gibbons H.R.O., and Royal Visit H.R.O.—a fine collection remarkable for their vigour and freshness. 2nd, Mr. E. S. Dodwell, with Mrs. A. Chancellor H.P., Ethel L.R.O., John Smith H.R., Tinnie H.P., Mrs. Payne H.R.O., Countess of Wilton H.R., Lizzie Tomes H.P., Lady Louisa H.R.O., Daisy L.R.O., Edith D'Ombraïn H.R.O., Dr. Epps H.R., Royal Visit H.R.O., Mary L.P., Clara Penson L.P., Esther Minnie H.R.O., Medina H.P., Mrs. Wilson H.R., and Muriel H.P.—scarcely inferior, except in size, to the first prize lot. 3rd, Mr. J. Douglas, with Princess of Wales H.R., Mrs. Gorton L.R., Mrs. Payne H.R.O., Jessie MED. P., Her Majesty L.P., Brunette H.R., Thomas William L.R., Baroness Burdett-Coutts MED. P., Norfolk Beauty H.P., Violet Douglas L.R., Mrs. Allcroft L.R.O., and Mary L.P.—a stand of extra fine blooms, but with too many repeats; we think no triplicates should be allowed. 4th, Mr. J. Hines. 5th, Mr. H. Hooper.

Class F. 12 blooms, dissimilar.—1st, Mr. E. S. Dodwell, with Tinnie H.P., Clara Penson L.P., Ethel L.R.O., Dr. Epps H.R., Mrs. Payne H.R.O., Zerlina H.P., Mary L.P., Esther Minnie H.R.O., Mrs. A. Chancellor H.P., Edith D'Ombraïn H.R.O., Medina H.P., and Master Norman H.R.—a grand lot. 2nd, Mr. J. Douglas, with Her Majesty L.P., Brunette H.R., Jessie MED. P., Royal Visit H.R.O., Mrs. Payne H.R.O., Mrs. Gorton L.R., Norfolk Beauty H.P., Anne Lord L.P., Mrs. A. Chancellor H.P., Violet Douglas, L.R., John Smith, H.R., Mrs. Allcroft, L.R.O.—also an excellent stand of blooms. 3rd, Mr. J. Buxton, with Royal Visit H.R.O., J. B. Bryant H.R., Tinnie H.P., Alliance H.P., Delicata L.P., Mary L.P., Mrs. Keynes M.R., Dr. Epps H.R., and Alice MED. P. 4th, Mr. J. Hines. 5th, Dr. Abercrombie.

Class G. 6 blooms, dissimilar.—1st, Master Stanley Dodwell, with Medina H.P., Royal Visit H.R.O., Mrs. Payne H.R.O., Master Norman H.R., Tinnie H.P., Miss Lee H.S. 2nd, Mr. Wm. Slack. 3rd, J. P. Sharpe, Esq.

Class H. Single Specimens.—Heavy Reds: Mr. Turner 1st with Henry; Mr. Douglas 2nd with Princess of Wales, 3rd and 4th with Brunette, and 5th with Princess of Wales.—*Light Reds:* Mr. Turner 1st and 5th with Thomas William; Mr. Douglas 2nd with Mrs. Gorton, and 3rd with Violet Douglas; Mr. Dodwell 4th with Thomas William.—*Heavy Purples:* Mr. Turner 1st with Muriel, 3rd with Mrs. A. Chancellor, and 5th with Zerlina; Mr. Douglas 2nd with Mrs. A. Chancellor, and 4th with Alliance.—*Light Purples:* Mr. Dodwell 1st, 4th, and 5th with Mary; Mr. Turner 2nd with Clara Penson, and 3rd with Mr. Tutton.—*Heavy Roses:* Mr. Douglas 1st and 2nd, Mr. Turner 3rd and 4th, and Dr. Abercrombie 5th, all with Mrs. Payne.—*Light Roses:* Mr. Turner 1st and 2nd with Evelyn, and 5th with Lady Carrington; Mr. Douglas 3rd with Miss Lee, and 4th with Mrs. Allcroft.—*Yellow-grounds:* Mr. Douglas 1st, 2nd, 3rd, and 4th with Ne plus ultra; Mr. H. Hooper 5th with Sir F. Roberts.

The Premier Picotee was Fellowes' *Mrs. Payne*, a heavy rose-edged variety, shown by Mr. Douglas, and which has been particularly fine this season.

SELFS, FANCIES, &C.

Class I. 24 blooms, not less than 12 dissimilar.—1st, Mr. Turner, with Jessica, W. P. Milner, Robert Scott, Etna, Fred, Lady Stamford, Unexpected, Lady Rosebery, Albert, Rosa Bonheur, L'Elegant, Sybil, Géant des Batailles, Duchess of Connaught, Rose Perfection, Harry Bertram, Constance, Lord Lewisham, Matador—a class which admits flowers of too heterogeneous a character, but otherwise very telling. 2nd, Mr. J. Douglas. 3rd, Mr. H. Hooper.

Class K. 12 blooms, dissimilar.—1st, Mr. E. S. Dodwell, with Sarah Payne, Dr. Hogg, Harry Matthews, Shirley Hibberd, Robert Logan, King of Yellows, James Merryweather, Diana, Mercury, Mrs. Tomes, John Soper, Purple King. 2nd, Master Stanley Dodwell. 3rd, Mr. G. Duffield, gardener to H. K. Mayor, Esq., Winchmore Hill. 4th, Dr. Abercrombie.

Class L. 12 blooms, Yellow-grounds, not less than 6 dissimilar: 1st, Mr. Douglas, with Mrs. Coleman, Alice, Prince of Orange, Ne plus ultra, Eleanor, Princess Beatrice, Lightning. 2nd, Mr. H. Hooper. 3rd, Mr. Cattley.

Class M. 12 plants in pots.—1st, Mr. Turner; 2nd, Mr. Douglas. These were all florists' varieties with a limited number of dressed flowers displayed on cards, exactly like the flowers in the stands. In this form the class appears to us an anomaly, and we seriously recommend that in future it should be exchanged for a class of well-grown plants carrying a good head of bloom, such as would be grown for decorative purposes. A group of well-grown plants of Carnations or Picotees or Cloves, or comprising some of each, would thus become an interesting feature of the show. The class might be for three plants to be grown in 8-inch pots, or for single plants in 6-inch pots, and the reward should be for good cultivation, and not for floral properties, which in shows of this character are provided for elsewhere.

SUPPLEMENTARY SHOW AT OXFORD.

Though Mr. Dodwell only removed to Oxford last autumn, and has scarcely had time to establish his fine collection of these flowers, yet the managers of the Royal Oxfordshire Horticultural Society did well to induce him with the assistance of his friends to hold a Carnation and Picotee Show as a feature supplementary to their usual summer show. It was an experiment, but proved to be a thoroughly successful one, as a capacious tent was filled with the flowers thus brought together, and these were evidently the chief source of attraction to the visitors during the afternoon. The day was fine and genial without being hot, and was just such as served to keep the flowers fresh and attractive. The new life infused by the innovation of a Carnation Show, may it be hoped serve to lead to some much needed reforms in the constitution of the Oxford Society, whose regulations and procedure are, as we are informed, of the antiquated type.

CARNATIONS.

Class A. 24 blooms, not less than 12 dissimilar.—1st, Mr. C. Turner, Slough, with Jessica R.F., Thomas Moore C.B., George Rudd S.B., Flirt S.F., Lord Clifton C.B., Isaac Wilkinson C.B., Rifleman C.B., Philip Thomas S.B., Robert Lord S.B., Rev. F. Tymons C.B., George S.B., Sybil R.F., John Hines S.B., Thomas Tomes S.F., John Keet R.F., Matador S.F., and Squire Llewelyn P.P.B.—the flowers were remarkable for size and finish. 2nd, Mr. E. S. Dodwell, Stanley Road, Oxford, with Mrs. Hewitt R.F.,

Thomas Moore C.B., Sarah Payne P.P.B., Robert Lord S.B., Mrs. Moore P.P.B., Unexpected P.P.B., Rifleman C.B., Richard Gorton S.F., H. K. Mayor P.P.B., Tom Power S.B., Master Fred C.B., Mrs. Barlow P.P.B., John Keet R.F., John Harland C.B., Squire Dodwell C.B., Florence Nightingale P.F., and Arthur Medhurst S.B.—medium-sized flowers of superb quality. 3rd, Mr. H. Hooper, Bath.

Class B. 12 blooms, dissimilar.—1st, Mr. E. S. Dodwell, with Thomas Moore C.B., Sarah Payne P.P.B., Henry Cannell S.F., Seedling P.P.B., Seedling R.F., Robert Lord S.B., Sarah Payne P.F., Alfred Hudson S.B., Florence Nightingale P.F., James Merryweather R.F., Arthur Medhurst S.B., and Mrs. Barlow P.P.B.—a stand of grand blooms. 2nd, Mr. Ben. Simonite, Sheffield, with James Douglas P.F., Dodwell's Seedling P.P.B., Admiral Curzon S.B., Thomas Moore C.B., Dr. Foster P.F., Thomas Tomes S.F., Dreadnought S.B., Mayor of Nottingham P.F., James Taylor P.P.B., and two Seedlings—all well finished flowers. 3rd, Mr. S. Brown, Birmingham. 4th, R. Gorton, Esq., Eccles. 5th, J. P. Sharpe, Esq., Perry Barr, Birmingham.

Class C. 6 blooms, dissimilar.—1st, Master Stanley Dodwell, Oxford, with Mrs. Matthews R.F., John Hines S.B., Richard Gorton S.F., James Douglas P.F., Fred S.B., and A. D. Southgate C.B. 2nd, Mr. H. G. Sharpe, Perry Barr, with Arthur Medhurst S.B., Thomas Moore C.B., Mrs. Matthews R.F., Florence Nightingale P.F., Clipper S.F., and John Keet R.F. 3rd, Dr. Abercrombie, Cheltenham.

Class D. Single Specimens.—*Scarlet Bizarres*: Mr. C. Turner 1st with George; Mr. E. S. Dodwell 2nd, 3rd, 4th, and 5th with Robert Lord. —*Crimson Bizarres*: Mr. E. S. Dodwell 1st with Master Fred, 2nd with E. S. Dodwell, 4th with Dr. Cronin, 5th with Thomas Moore, Jun.; Mr. Brown 3rd with Thomas Moore. —*Pink and Purple Bizarres*: Mr. E. S. Dodwell 1st and 3rd with Sarah Payne, 5th with Mrs. Barlow; R. Gorton, Esq., 2nd and 4th with William Skirving. —*Purple Flakes*: Mr. B. Simonite 1st with James Douglas, 3rd with Mayor of Nottingham, 5th with Squire Meynell; R. Gorton, Esq., 2nd with Mayor of Nottingham; J. P. Sharpe, Esq., 4th with Dr. Foster. —*Scarlet Flakes*: Mr. E. S. Dodwell 1st with Curzon Sport, 5th with Scarlet Keet; Mr. Turner 2nd and 3rd with Thomas Tomes, 4th with William the 4th. —*Rose Flakes*: Mr. Turner 1st with Jessica, 2nd with Mrs. Medhurst; R. Gorton, Esq., 3rd and 4th with Tim Bobbiu, 5th with James Merryweather.

The Premier Carnation was Dodwell's *Philip Thomas* S.B., exhibited by Mr. C. Turner.

PICOTEES.

Class E. 24 blooms, not less than 12 dissimilar.—1st, Mr. C. Turner, with Mrs. A. Chancellor H.P., Thomas William L.R., Mrs. Rayner H.R.O., Lady Louisa H.R.O., Queen of Summer MED. R., Thomas Jiven L.R., Constance Heron H.S., Her Majesty L.P., Royal Visit H.R.O., Dorothy L.R.O., Mrs. Webb H.R.O., Lady Carrington L.R.O., Madame Corbyn H.R.O., Baroness Burdett Coutts MED. P., and Mrs. Payne H.R.O.; as with the Carnations from the same exhibitor these were large and superbly finished blooms. 2nd, Mr. E. S. Dodwell, with Mrs. A. Chancellor H.P., Royal Visit H.R.O., Tinnie H.P., Mrs. Payne H.R.O., Edith D'Ombra H.R.O., Medina H.P., Lady Louisa H.R.O., Zerlina H.P., Mary L.P., Dr. Epps H.R., Lizzie Tomes H.P., Muriel H.P., Evelyn L.P., and Esther Minnie H.R.O.; a stand of excellent and well-varied blooms. 3rd, Mr. H. Hooper, Bath.

Class F. 12 blooms, dissimilar.—1st, Mr. E. S. Dodwell, with Tinnie H.P., Mrs. Payne H.R.O., Mrs. A. Chancellor H.P., Royal Visit H.R.O., Master Norman H.R., Lizzie Tomes H.P., Mary L.P., Muriel H.P., Lady Louisa H.R.O., Esther Minnie H.R.O., Edith

D'Ombra H.R.O., and Medina H.P.—a very attractive stand of chaste, well coloured, well grown flowers. 2nd, Mr. B. Simonite, with Mrs. Niveu H.P., Mrs. Gorton L.R., Mrs. Payne H.R.O., Zerlina H.P., Mrs. Allcroft L.R.O., Lady Holmesdale H.R.O., Tinnie H.P., Theresa L.R.O., Mary L.P., Dr. Epps H.R., Violet Douglas L.R., and Edith D'Ombra H.R.O., an excellent second to the stand which obtained the first place. 3rd, Mr. S. Brown, with Emmeline L.R., Muriel H.P., Beauty of Bath L.R.O., Charles Barnes, Picturata H.R., Her Majesty L.P., Zerlina H.P., Edith D'Ombra H.R.O., Baroness Burdett-Coutts MED. P., Fanny Helen H.R.O., Mrs. Bower L.R., and a Seedling, light purple edge. 4th, J. P. Sharpe, Esq. 5th, Mr. H. Cattley, Bath.

Class G. 6 blooms, dissimilar.—1st, Master Stanley Dodwell, with Medina H.P., Royal Visit H.R.O., Lady Louisa H.R.O., Dr. Epps H.R., Minnie L.P., Miss Wood L.R.O. 2nd, R. Gorton, Esq., with Master Norman H.R., Lady Louisa H.R.O., Mrs. Payne H.R.O., Tinnie H.P., Titania L.P. (fine), Edith D'Ombra H.R.O. 3rd, Mr. H. G. Sharpe, with Zerlina H.P., John Smith H.R., Thomas William L.R., Edith D'Ombra H.R.O., Beauty of Cheltenham MED. P., and a Seedling. 4th, Dr. Abercrombie.

Class H. Single Specimens.—*Heavy Reds*: Mr. E. S. Dodwell 1st with Dr. Epps; Mr. Turner 2nd with Dr. Epps, 4th with Monarch; Mr. S. Brown 3rd with John Ball; J. P. Sharpe, Esq., 5th with John Smith. —*Light Reds*: Mr. B. Simonite 1st, 2nd, 5th with Mrs. Gorton; J. P. Sharpe, Esq., 3rd with Thomas William; Mr. S. Brown 4th with Emmeline. —*Heavy Purples*: Mr. Turner 1st with Muriel, 2nd with Edith, 3rd, 5th with Mrs. Summers; Mr. B. Simonite 4th with Mrs. Niven. —*Light Purples*: Mr. E. S. Dodwell 1st, 2nd, with Mary; Mr. S. Brown 3rd with Mary; R. Gorton, Esq., 4th with Titania; Mr. B. Simonite 5th with Mary. —*Heavy Roses*: Mr. Turner 1st, 4th, 5th with Mrs. Payne, 2nd with Royal Visit, 3rd with Mrs. Webb. —*Light Roses*: Mr. B. Simonite 1st with Mrs. Allcroft; Mr. S. Brown 2nd, 4th with Mrs. Allcroft; Mr. Turner 3rd with Dorothy, 5th with L'Elegant. —*Yellow-grounds*: Mr. Turner 1st with Bullion, 2nd with Flavius, 3rd with Coronation.

The Premier Picotee was Fellowes' *Mrs. Payne*, a heavy rose-edged variety shown by Mr. C. Turner.

SELFS, FANCIES, &c.

Class I. 24 blooms, not less than 12 dissimilar.—1st, Mr. C. Turner, with Lord Rosebery, Lady Rosebery, Jessica, George, Bridesmaid, Coustaunce, L'Elegant, Comet, Matador, Hindoo, Dominie Sampson, Mrs. Matthews, Lucifer, Géant des Batailles, Novelty, Lady Stamford, Sultana, Fire-eater, Mrs. Champneys. 2nd, Mr. E. S. Dodwell, with Seedlings and Sports. 3rd, Mr. H. Hooper.

Class K. 12 blooms, dissimilar.—1st, Master Stanley Dodwell. 2nd, R. Gorton, Esq. 3rd, Mr. H. Cattley. 4th, Dr. Abercrombie.

Class L. 12 blooms, yellow-grounds, not less than 6 dissimilar.—1st, Mr. C. Turner, with Lady Aitchison, Mrs. Hobbs, Miss Watson, Bullion, Gertrude Hammersley, Mr. Cavell, Flavius, Ne plus ultra. 2nd, Mr. H. Hooper. 3rd, Mr. Cattley.

Class M. 12 specimen plants in pots.—1st, Mr. C. Turner. The same remarks apply to these as to those shown at South Kensington.

MANCHESTER.

The annual northern exhibition was held August 15th, in the Manchester Town Hall, under the auspices of the Council of the Royal Botanical and Horticultural Society.

There was a fine display of Picotees and Carnations, the former being fully up to the average, while the Carnations were in some respects above that standard. Notwithstanding the adverse atmospheric conditions of the last few weeks, the majority of the exhibitors had succeeded in raising flowers which were remarkable both for fulness and for purity of colour. The old growers were again to the fore, but it was satisfactory to find that there were several new exhibitors, which may be taken as an indication that the culture of these flowers is being carried on to a greater extent than has latterly been the case.

CARNATIONS.

12 blooms, dissimilar.—1st, Mr. B. Simonite, Sheffield, with James Douglas P.F., John Hines S.B., James Merryweather R.F., Seedling P.F., Seedling C.B., style of Thomas Moore, good; Sportsman S.F., Dreadnought S.B., extra fine; Squire Meynell P.F., Seedling R.F., light, soft, very pleasing; Admiral Curzon S.B., Mr. Battersby S.F., and Sarah Payne, P.P.B. 2nd, Mr. Edward Adams, Gateshead, with John Burnett S.B., Isaac Wilkinson C.B., Mereury S.B., Falconbridge P.P.B., Eccentric Jaek C.B., John Keet R.F., Sarah Payne P.P.B., Rose of Stapleford R.F., Seedling S.B., Curzon style, good; President P.F., True Briton S.B., and Black Diamond C.B. 3rd, Mr. Robert Lord, Todmorden, with Admiral Curzon S.B., James Douglas P.F., Annihilator S.F., Lord Raglan C.B., Falconbridge P.P.B., James Cheetham S.F., Shirley Hibberd C.B., John Ball S.F., Edward Adams S.B., Mrs. Dodwell R.F., Earl Wilton P.F., and Fred S.B. 4th, Mr. Thomas Flowerday, Gateshead, who had a fine bloom of James Flowerday, a soft rose flake seedling, of full size and much promise. 5th, Mr. George Rudd, Bradford. 6th, Mr. G. Geggie, Bury—a fine class, well contested throughout.

12 blooms, 9 at least dissimilar.—1st, Richard Gorton, Esq., Eccles, with Rob Roy R.F., Robert Lord S.B., Robin Hood R.F., William Skirving P.P.B., Edward Adams S.B., Mrs. Barlow P.P.B., Thomas Moore C.B., Thomas Tones S.F., Seedling C.B., fine; Tim Bobbin R.F., extra; Admiral Curzon S.B., and William Skirving C.B.—an extra fine collection. 2nd, Mr. Thomas Bower, Bradford, with Arthur Medhurst S.B., Lord Derby P.F., Lord Milton C.B., Admiral Curzon S.B., Sportsman S.F., Maid of Athens R.F., Harrison Weir C.B., Squire Meynell P.F., J. D. Hextall C.B., Edward Adams S.B., Squire Trow P.F., and Bayley, jun., S.F. 3rd, Mr. W. Taylor, Middleton, with Crista-galli R.F., Earl Wilton P.F., Sportsman S.F. (2), James Merryweather R.F. (2), Admiral Curzon S.B. (2), John Keet R.F., Master Fred C.B., Lady Peel P.F., and James Cheetham S.F. 4th, Mr. Chadwick, Dukinfield.

6 blooms, dissimilar.—1st, S. Barlow, Esq., Castleton, with Seedling R.F., Admiral Curzon S.B., Sportsman S.F., Seedling C.B., very fine, an extra variety, bright, rich in colour, and beautifully marked; Harrison Weir C.B., fine; and Seedling S.F. 2nd, Mr. J. Whitham, Hebden Bridge, with Lord Raglan C.B., Sportsman S.F., Dr. Foster P.F., James Merryweather R.F., Admiral Curzon S.B., and Annihilator S.F. 3rd, Mr. Frank Law, Todmorden, with Admiral Curzon S.B., Mayor of Nottingham P.F., James Merryweather R.F., Mary S.B., James Taylor P.P.B., and Annihilator S.F. 4th, Mr. W.

Prescott, Newton Heath. 5th, J. P. Sharpe, Esq., Perry Barr. 6th, Mr. E. Shaw, Newton Heath. 7th, Mr. G. Thornely, Middleton. 8th, Mr. E. Pohlman, Halifax.

Single Blooms.—*Scarlet Bizarres*: Mr. R. Lord 1st, 3rd, and 6th; Mr. T. Bower 2nd and 4th; and John Whittaker 5th with Admiral Curzon.—*Crimson Bizarres*: R. Gorton, Esq., 1st, 2nd, and 4th with William Skirving; Mr. Chadwick 3rd with J. D. Hextall; Mr. T. Bower 5th with Lord Milton; Mr. R. Lord 6th with Capt. Stott.—*Pink and Purple Bizarres*: R. Gorton, Esq., 1st, with Miss Henderson; 2nd and 5th with William Skirving; Mr. Edward Adams 3rd, 4th, and 6th with Eccentric Jaek.—*Purple Flakes*: Mr. B. Simonite 1st with Dr. Foster; Mr. R. Lord 2nd, 4th, and 5th with Earl Wilton and Juno; Mr. W. Taylor 6th, with Earl Wilton.—*Scarlet Flakes*: Mr. E. Adams 1st with Seedling, fine; Mr. B. Simonite 2nd with Sportsman; Mr. G. Rudd 3rd with Bayley, jun.; Mr. R. Lord 4th with Sportsman; S. Barlow, Esq., 5th with Seedling; Mr. Whittaker 6th with Annihilator.—*Rose Flakes*: S. Barlow, Esq., 1st with Crista-galli; R. Gorton, Esq., 2nd, 3rd, and 6th with Tim Bobbin, Rob Roy, and Robin Hood; Mr. B. Simonite 4th and 5th with Seedling.

PICOTEEES.

12 blooms, dissimilar.—1st, Mr. T. Flowerday, Gateshead, with Thomas Jivens L.R.O., Mrs. Chancellor H.P., Miss Flowerday L.R.O., as shown far too weak in colour, but well formed and with a broad fine petal; Zerlina H.P., fine, selected as premier bloom of the exhibition in Picotees; Miss Wood L.R.O., Thomas William L.R., extra; Amy Robsart L.P., Dr. Abererombie H.R., Alliance H.P., J. B. Bryant H.R., Minnie L.P., and Royal Visit H.R.O.—a stand of well-grown and well-arranged flowers, but with colours toned to paleness, almost in one or two cases approaching pallidness. 2nd, Mr. R. Lord, with Zerlina H.P., Miss Horner H.R.O., Ann Lord L.P., Tinnie H.P., Miss Wood L.R.O., Brunette H.R., Nymph L.P., Mrs. Alleroff L.R.O., J. B. Bryant H.R., Minnie L.P., Rev. F. D. Horner, very bright feathered edged red; and John Smith H.R.—a fine collection, bright and well grown. 3rd, Mr. B. Simonite, with Mrs. Niven H.P., Mrs. Alleroff L.R.O., J. B. Bryant H.R., Mary L.P., Miss Wood L.R.O., Dr. Epps H.R., Minnie L.P., Seedling, scarlet edge, bright, medium, fine; Zerlina H.P., Seedling, heavy scarlet edge, and Mrs. Gorton L.R. 4th, Mr. G. Rudd. 5th, Mr. G. Geggie.

12 blooms, 9 dissimilar.—1st, R. Gorton, Esq., with John Smith H.R., Zerlina H.P., Maid Marian, scarlet edge; Alliance H.P., Tinnie H.P., Fanny Helen H.R., Ann Lord L.P., Mrs. Payne H.R.O., Edith D'Ombra H.R.O., Clara Penson L.P., very sweet; Seedling, rose edge; and Norfolk Beauty H.P. 2nd, Mr. T. Bower, with Mrs. Summers H.P., Mrs. Payne H.R.O., Zerlina H.P., J. B. Bryant H.R., Mrs. Dodwell H.R., Thos. William L.R., Mrs. Alleroff L.R.O., Alliance H.P., Fanny Helen H.R., Ann Lord L.P., and Mrs. Bower L.R. 3rd, Mr. E. Adams with Royal Purple, Royal Visit H.R.O., Thos. William L.R., Dr. Epps H.R., Exhibition H.R., Zerlina H.P., Baroness Burdett-Coutts MED. P., Fanny Helen H.R., and Alliance H.P. 4th, Mr. W. Taylor. 5th, Mr. Chadwick.

6 blooms, dissimilar.—1st, Mr. J. Whitham, Hebden Bridge, with J. B. Bryant H.R., Miss Horner H.R.O., Zerlina H.P., Miss Wood L.R.O., Mary L.P., and John Smith H.R. 2nd, J. P. Sharpe, Esq., Perry Barr, with Edith D'Ombra H.R.O., John Smith H.R., Thomas William L.R., Beauty of Cheltenham MED. P., Clara Penson L.P., and Mrs. Payne H.R.O. 3rd, S. Barlow, Esq., with Miss Horner H.R.O., Tinnie H.P., Minnie L.P., John Smith H.R., Ann Lord L.P., and Alliance H.P. 4th, Mr. E. Shaw,

Newton Heath. 5th, Mr. F. Law, Todmorden. 6th, Mr. E. Pohlman, Halifax. 7th, Mr. J. Whittaker, Royton. 8th, Mr. W. Prescott, Newton Heath.

Single Specimens.—*Heavy Reds*: Mr. R. Lord 1st and 4th with John Smith; Mr. J. Whitham 2nd with John Smith; Mr. E. Adams s., 3rd with Exhibition; Mr. B. Simonite 5th with Dr. Epps; Mr. W. Taylor 6th with Countess of Wilton.—*Light Reds*: Mr. Flowerday 1st, 2nd, 5th, and 6th with Thomas William; Mr. B. Simonite 3rd and 4th with Mrs. Gorton.—*Heavy Purples*: Mr. R. Lord 1st with Zerlina; Mr. B. Simonite 2nd, 3rd, and 6th with Mrs. Niven and Zerlina; Mr. Geggie 4th with Zerlina; Mr. Taylor 5th with Zerlina.—*Light Purples*: Mr. R. Lord 1st with Ann Lord; Mr. B. Simonite 2nd and 3rd with Mary; Mr. F. Law 4th with Mary; Mr. Flowerday 5th with Minnie; Mr. F. Law 6th with Nymph.—*Heavy Roses*: J. P. Sharpe, Esq., 1st, 2nd, and 6th with Seedling, Edith D'Ombraïn, and Seedling; Mr. Lord 3rd with Elise; Mr. G. Rudd 4th with Mrs. Rudd; Mr. Bower 5th with Edith D'Ombraïn.—*Light Roses*: Mr. R. Lord 1st, 3rd, and 4th with Miss Wood and Mrs. Allcroft; Mr. Chadwick 2nd with Miss Wood; Mr. B. Simonite 5th with Mrs. Allcroft; Mr. E. Pohlman 6th with Miss Wood.

12 *Selfs*.—1st, Samuel Barlow, Esq., Stakehill House, Castleton; 2nd, R. Gorton, Esq., Eccles.—12 *Fancies*: 1st, S. Barlow, Esq.; 2nd, Mr. G. Geggie.

The Premier Carnation selected from the whole exhibition was *Admiral Curzon* shown by Mr. R. Lord, Todmorden. The Premier Picotee was *Zerlina*, shown by Mr. T. Flowerday, Gateshead.

Our report, thanks to our kind helpers, has extended to such a length that we must reserve notes on the novelties shown for a later page.—T. MOORE.

ISMENE AMANCAES.

THE Peruvian Daffodil is by no means a very common plant in gardens, and to those who know it not it may perhaps best be described as a golden-blossomed *Pancratium*. As a wild plant "at home" it is most popular, quite an ovation being paid to it when in flower, "old men and maidens, young men and children" being all *en fête*, sallying forth in best attire to gather its golden Narcissus-like flowers. It has just flowered with us in a cold frame, and as its culture is most simple, I relate it for the benefit of those who may wish to grow such a sweet-scented and effective flower.

Last autumn I obtained from the new Plant and Bulb Company two dried bulbs about the size of bantams' eggs, which I at once potted in sandy loam, and placed on a shelf in a cold house, giving them no water. In April they showed signs of growth, and a little water was then given to them for the first time. They were then removed to a cold frame, where they have quite recently

bloomed, and have attracted much attention from our visitors, none of whom had before seen such a weird Daffodil as is this Peruvian one. I believe Dr. Wallace of Colchester plants out the bulbs as soon as they show signs of growth in the spring, say April or May, and in that way very strong and vigorous flower scapes and foliage may be secured, taking care to take up the bulbs and give them a long and dry resting season in a cool house during the winter.—F. W. B.

ROSE TYPES.*

GÉNÉRAL JACQUEMINOT TYPE.—In 1852, the head of what is now considered the most valuable type made his bow to an admiring world. Clad in rich crimson livery he still commands respect and admiration, and marshalled under his generalship is the army of dark roses, which so excite and please our senses by their charms and loveliness. This family probably originated from the old Hybrid China Gloire des Rosomène. They are moderately hardy, but less so than those of the Baronne Prévost, Jules Margottin, and La Reine types. The flowers are invariably shades of red and crimson, generally highly perfumed, freely produced in the spring, but varying greatly as to their autumnal bloom. As a family they are much more shy in the autumn than any of the others. The shoots are of vigorous growth, not very thick, generally upright, with quite numerous light green spines; the foliage handsome, rather pointed. It is now the most numerous of the families, popular taste demanding crimson roses and those of dark shades; leading varieties of the type are: Beauty of Waltham, Camille Bernardin, Dupuy Jamain, Léopold Premier, Marie Baumann, Mdle. Marie Rady, Maurice Bernardin, Pierre Notting, Prince Arthur. There are also Charles Lefebvre, Alfred Colomb, Duke of Edinburgh, Prince Camille, and Sénateur Vaisse, which are supposed to be seedlings of Jacqueminot, but they cluster about them other varieties of the family, and are worthy of separate mention and consideration.

VICTOR VERDIER TYPE.—The head of this family originated with Lacharme, of Lyons, and was sent out by him in 1852. It is

* Continued from page 87.

doubtless from one of the *La Reine* type crossed with some monthly rose, probably a *Bourbon*. The descendants are very numerous, and in spite of their rather tender habits form a valuable group, being the most free-flowering of them all. Had they but fragrance they would be unrivalled, but alas! they are devoid of scent, and therefore cannot rank as high as the others. Fine feathers alone do not constitute fine birds, and surely fragrance is to the rose what song is to the bird. The shoots are of moderate growth, stout, upright, nearly smooth, of a reddish green, with an occasional reddish thorn; the foliage is very large, of a deep lustrous green, very attractive. The flowers are large, well built up generally, shades of rose and pink prevail. It is the best adapted for forcing in winter of all the families. The leading varieties grown are: *André Dunand*, *Captain Christy*, *Charles Verdier*, *Countess of Oxford*, *Etienne Levet*, *Hippolyte Jamain*, *Julius Finger*, *Mad. George Schwartz*, *Mad. Dévert*, *Mad. Eugène Chambeyran*, *Mad. Louis Donadine*, *Mad. Maxime de la Rocheterie*, *Mlle. Eugénie Verdier*, *Marie Cointet*, *Marie Finger*, *Mrs. Baker*, *Oxonian* (somewhat fragrant), *President Thiers*, *Pride of Waltham*, *Rosy Morn*, *Souvenir de Président Porcher*.

JULES MARGOTTIN TYPE.—In 1853, Jules Margottin, of *Bourg-la-Reine*, near Paris, sent out a fine rose which he called after himself; though he has been raising seedling roses ever since, none of them have quite come up to this in worth. Wood light green; sharp red thorns, somewhat numerous; shoots rather stout, and generally of vigorous growth; crimped foliage. Flowers of large size, very full, somewhat flat shape, mostly shades of rose and carmine, almost without perfume; generally free in the autumn. They are very hardy; as a rule difficult of propagation from cuttings, but making very vigorous plants when budded. *Abel Grand*, *Achille Gonod*, *Bessie Johnson* (quite fragrant), *Claude Bernard*, *Countess of Serenye*, *Duchesse de Valombrosa*, *Edward Morren*, *Egeria*, *Emily Laxton*, *John Hopper*, *Magna Charta*, *Mad. Gabriel Luizet*, *Mad. Lacharme*, *Mad. Louise Lévêque*, *Mlle. Thérèse Levet*, *Marchioness of Exeter*, *Marguerite de St. Amande*, *Marquise de Castellane*, *Miss Hassard* (scented), *Mons. Noman*, *Pæonia*, *Peach Blossom*, *Princess Mary of Cambridge*, *Rev. J. B. Camm* (very sweet), are the leading sorts.

SÉNATEUR VAISSE TYPE.—*Sénateur Vaisse* was introduced in 1859. In this family we find what are perhaps the most perfectly-formed flowers. The varieties are of moderate

growth, with smoother wood than most dark roses; the foliage, too, is more round and of a deeper green. *Amieet Bourgeois*, *E. Y. Teas*, *Mad. Adelaide Cote*, *Mad. Victor Verdier*, and *Mrs. Laxton*, are members of this group.

CHARLES LEFEBVRE TYPE.—*Lacharme* introduced *Charles Lefebvre* in 1861; he believes that it is the result of a cross (I infer by natural agencies) between *Victor Verdier* and *Général Jacqueminot*; it certainly shows many of the characteristics of these two sorts. The wood and foliage are light green, occasionally armed with pale red thorns, but as a rule the wood is very smooth. The flowers are more waving in outline than any of the other families, the habit of growth is free, intermediate between *Victor Verdier* and *Général Jacqueminot*. *Glory of Cheshunt*, *Harrison Weir*, *Henry Bennett*, *Mad. Anna de Besobrasoff*, *Marguerite Brassac*, *Paul Jamain*, *Président Leon de St. Jean*, and *W. Wilson Saunders* are marked members of this type. *Dr. Andry*, *Horace Vernet*, *Lord Macaulay*, *Mrs. Harry Turner*, *Rev. W. H. Stomers*, and *Souvenir du Dr. Jamain*, also seem to find a place in this group.

PRINCE CAMILLE TYPE.—In 1861, *E. Verdier* sent out *Prince Camille de Rohan*. In this type we find the darkest most velvety roses. It would seem as though the family must have been produced by the blending of *Général Jacqueminot* with *Giant of Battles*. The varieties are of vigorous or free growth; the wood is somewhat darker, the spines less numerous, the habit more spreading than in those of the *Jacqueminot* type. None of these bloom freely in the autumn, but in the spring their wondrous rich crimson shades gain more admirers than any others. *Baron Chaurand*, *Baron de Bonstetten*, *La Rosière*, *Mons. Bonecenne*, are prominent members of this family. *Abel Carrière*, *Jean Liabaud*, *Jean Soupert*, and *Souvenir d'Auguste Rivière* can also be classed with them, though they show more of the *Giant of Battles* character than the former, and might therefore not inappropriately be placed by themselves.

ALFRED COLOMB TYPE.—*Alfred Colomb*, sent out in 1865, has a somewhat similar habit of growth to *Général Jacqueminot*, but the thorns are much less numerous, and with a more yellow hue; the flowers are also fuller, and more globular, and blossom much more abundantly. *A. K. Williams*, *Mad. Alphonse Lavallée*, and *William Koelle* may be grouped under this head.

DUKE OF EDINBURGH TYPE.—The only English rose which is the head of a type was sent out by *George Paul* in 1868. The habit

of growth is much like that of Jacqueminot, but the foliage is generally longer and larger. The flowers are not permanent in colour, burning very quickly in the sun, and are very sparsely produced in the autumn. It is a very beautiful family when grown in a moist cool climate; but there are few of the members that will do well under our hot sun. The varieties best known, mostly of recent origin, are Brightness of Cheshunt, Dr. Hooker, Duke of Connaught, Duke of Teck, Robert Marnock, S. Reynolds Hole, Sultan of Zanzibar, The Shah.

All of the types described above belong to the Hybrid Remontant class of roses.—H. B.

DOUBLE AURICULAS.

OF the double Auriculas in cultivation the best known are *Othello*, the old black variety, which has some compact and fully double flowers borne on weak stems; and *Yellow Prince*, the old double yellow variety, with its somewhat long double pale yellow flowers. The first-named is somewhat delicate in habit, and needs to be tended with special care during the summer months.

By dint of much careful hunting after double forms on the Continent and elsewhere, I have secured the following, to all of which I have given names, viz. :—

Bridesmaid: creamy white, large flowers, not fully double, but requiring to be grown strongly; this is the old double white, and it is now very scarce.

Cleopatra: pale lilac purple, large flowers, fully double, fine shape.

Delicata: primrose, large and fully double, quite distinct.

Emperor: rich deep purple blue, large and very fine, but delicate in habit.

Pandora: buff yellow, fine shape and very double.

Portia: pale mauve, with white centre, pretty and distinct.

Purpurea: lively violet purple, full double flowers, very free and fine.

Violetta: clear violet, fine shape, large and full.

I hope, next season, to be able to show a collection of these. For three years past the plants have persistently gone back, owing, I

fear, to the use of some loam that did not appear to suit them. They have never looked better than they do this season; indeed, I may say this of my entire collection of Auriculas, for all are growing away merrily, and the plants are very healthy and clean. I have altogether about seventy plants of double Auriculas, but many of them are small; still they are making a good growth. Not one of them must be overpotted. I find they do best in small-sized well-drained pots, provided there is space for the roots to work in. They seem to do best in a rather light soil, with a good mixture of sand and leaf soil. I think I can say that I have one of the best, if not the best collection of double Auriculas in the country.—R. DEAN, *Ealing*.

CHRYSANTHEMUM CULTURE.

CHRYSANTHEMUMS are more the rage than ever, but to attempt to take the advice of most writers regarding them is often misleading. To take up the various gardening papers, and read the contradictory modes of culture propounded therein is quite amusing. I rely entirely upon my own experience and judgment, for what suits one class does not suit another. Some varieties, such as the dwarfer growing sorts, do better for late striking; while others, such as the Empress of India type, must be struck early. Again, as to pots, these should be just of a size to suit the particular variety, not all of one size for the robust and weak rooters. The size of pots, proper drainage, &c., are important matters.

I will just give my simple mode of culture, and if anything in it is of service to you well and good, but do not attach blame to me in case of failure. I look after all the strong growers as soon as I can get suitable cuttings—moderate clean cuttings, not great cabbages; other sorts I take in course. I strike all in *boxes* in a cold house, merely firing to keep out frost. When I see they have just struck, I take them out and thoroughly examine the base, to nip out any eyes or clubs, then repot them singly in small sixties, potting on, not at any one particular time, but as the individual plants need it. For soil I try to get of sweet well-rotted turf one part, of yellow loam an equal quantity, of rotted dung



Chrome Strobant Chart.

Peach Alexander

J. L. Macfarlane del.

merely broken, not sifted, one-fourth, and some old lime rubbish broken into small pieces; and I generally get a little bone dust, and use judgment as to what sand I add; sometimes if I have the lime rubbish I don't use any sand. As to liquid manure, while the plants have a rich soil to feed upon, they most certainly do not require any other stimulant before the buds appear, but I give mine an occasional dose of sulphate of ammonia, or soot water, not for the growth of the plant, but the former keeps the soil moister in hot weather (as you probably know ammonia causes dampness), and thus keeps the plants from flagging to some extent.

Now by the time the buds are well formed the pots are full of roots, and have consumed much of the goodness of the soil, so that the buds, *not* the plants, require a stimulant to swell them. I never give liquid manure to the plants while forming their buds or else blindness would be the result. *I don't disbud until I can do so conveniently. I think it bad practice when you have, say five tender buds, to suddenly leave the centre one to the tender mercy of winds, frost, and vermin. I wait till they separate and the bud is hardier.* In damp weather while the flowers are expanding they should have warmth with ventilation.—OLD GROWER.

P.S.—My friend “Old Grower” was so kind as to give me the above directions some years ago, and I hope they may be serviceable to some of the young readers of the *Florist*, who are ambitious to obtain well-bloomed Chrysanthemums. For a selection of good kinds there is no better guide than the list given in a recent number of the *Florist* by Mr. Samuel Barlow.—F. W. B.

PEACH ALEXANDER.

[PLATE 570.]

WE are indebted to Mr. T. F. Rivers, of Sawbridgeworth, for the specimens of this new American Peach which are figured on the accompanying plate. It is probably the earliest variety at present in cultivation. As it is also decidedly earlier and appreciably larger than the earliest and best of the better known varieties, and is also of high quality, it is probable that a large

share of popular favour is in store for it in the future. We have therefore thought it worthy of a place in our series of fruit portraits. A woodcut figure of it, showing it to be a large-flowered sort, was published in the *Gardeners' Chronicle* (N. S., xvii., 705). Our figure and that of our contemporary were from the same source, and both represent a fruit measuring about three inches across.

The fruit is, as will be seen, nearly round, with a well-marked suture, a deepish hollow at the base, and a nipple at the apex. The skin is a pale straw yellow, clouded with bright rosy crimson where exposed, and also dotted over with the same colour. The flesh is white to the stone, and is melting, juicy, and briskly flavoured. Mr. Rivers, writing in May last, speaks very highly of the variety. “The Alexander Peach,” he says, “is, I think, destined to a great future in forcing houses. It is some years since I received it from America, and I confess to having been very incredulous when I read the description given of it; but it has entirely justified the high character which accompanied the plants sent to me. I have not fruited it out of doors—an almost hopeless method of Peach growing—but under glass it is an admirable fruit. In a cold orchard-house it ripens a week before Early Beatrice, and is double the size. I have now (May 1) in a heated orchard-house fruits ripe and ripening, the trees having been put in about the end of January.”

Other correspondents of the same journal speak in terms equally appreciative. S. N. from trees received early in the present year obtained in fifteen weeks (April 19) perfectly ripe and finely-flavoured fruit, and hopes to get them considerably earlier next year from the established trees. Mr. Smith, Rockville, Cosham, thinks it will prove a “very valuable early variety”; he gathered ripe fruit from it on April 22 this year and May 2 last year, growing in an early house with Early Rivers, Early York, and other early sorts, and finds it “to ripen a month earlier than any of these,” the fruit moreover being of a good size and colour. Another gardener from the Isle of Wight, Mr. C. Meehan, of St. Clare, writes:—“It may be of interest to those who may be contemplating planting it to know that last season I fruited it on the open wall, where

it ripened its fruit quite a fortnight earlier than our earliest kinds growing in an unheated Peach-house." The statements afford sufficient evidence of its being a variety which is not likely to disappoint those who plant it, either as to its precocity or quality.—T. MOORE.

CALANTHE VEITCHII.

IN this plant we have one of the finest of decorative Orchids, and one due to the skill of the hybridist, since it was the result of the intercrossing of *Calanthe vestita* (male) and *Limatodes rosea* (female). It is of deciduous habit, losing its foliage just as it comes into flower. The plants are free blooming and continue in flower for two months; they produce flower spikes from three to four feet or more in length, and sometimes bear as many as fifty flowers on one spike. The sepals and petals, as well as the lip, are of a rich rosy pink colour. By having a sufficient number of plants, and starting them successively into blossom, a gay appearance may be kept up throughout the dull months of winter.

This *Calanthe* is very accommodating, since it will thrive well in baskets suspended from the roof, as well as in pots suspended in the same way as the baskets; it will also thrive in pots standing on the tables, where room is not an object. If grown in baskets it will require more water in the growing season than if grown in pots. We prefer them grown in this manner where there is room, as they look so pleasing with their spikes hanging gracefully from the roof.

The plants are of easy cultivation when they obtain the treatment they require. Like other deciduous and bulbous plants, their blooming season follows that of the completion of the growth of the bulbs, and their growing season commences when they have finished blooming, after which they will soon begin to throw up their young growths. When this is observed, let them be fresh potted. We have found it best to do this every year, as they lose all their old roots annually. We shake the soil away and cut off all the roots, and repot them, when as soon as they begin to grow, they will send out their new roots into fresh soil. The material we use for potting

is good rough fibrous loam and leaf mould, with a little rotten manure, mixing them well together, and giving good drainage, with a layer of rough peat and moss on the top of it. In potting, fill the pot up with the soil, and place the bulb on the top, just making it firm; it will soon root and support itself. If planted in baskets it is necessary to place some rough fibrous peat round the sides and at the bottom to keep the soil from washing out; fill the basket up with the same kind of compost as that recommended for the pots, with drainage at the bottom; place the bulbs upright in the basket, about three in number, on the top of the soil, and finish by giving a little water. After the plants get into growth and are making roots freely, they should be kept always moist until they have finished their growth, when a less copious supply will suffice; and after they have bloomed they may be kept dry for a time until they are ready for potting. When the plants are in vigorous growth a little manure water may, with advantage, be applied to their roots once or twice a week, but it must be well diluted before being used, as, if given too strong, it might destroy the roots.

We find the East India house to suit these *Calanthes* best, or they will thrive well in a house where stove plants are grown. They are propagated by separating the pseudobulbs at the time they are potted, and as they generally make two growths from one bulb the increase is comparatively rapid. Like all other of these plants, they must be kept free from insects. — B. S. WILLIAMS, *Victoria Nursery, Upper Holloway (in Orchid Album)*.

PRIZE PANSIES.

THE thirty-eighth annual competition of the Scottish Pansy Society was held at Edinburgh on June 23rd, and was in every way successful. The 1st prize in the nurserymen's class of 24 show Pansies, dissimilar, was taken by Messrs. Wm. Paul & Son, Crossflat Nurseries, Paisley, who had very fine blooms of the following:—Artemis, Captain Knowles, Alex. Watt, J. P. Barbour, Peter Lyle (seedling), John Stewart (seedling), dark selfs; Dr. Campbell and George Rudd, yellow selfs; Mrs. Galloway (seedling) and Silverlight, white selfs; Miss Baird, Gertrude, Mrs. Jas. Millar (seedling),

Miss Barr, Miss Meikle, Mrs. D. Wallace, Mrs. Mackenzie, white grounds; Robert Pollock, Wm. Robin, Dr. Livingstone, Jas. Buchanan, A. Henderson, A. Cameron, Baillie Cochrane, yellow grounds. The 1st prize for 24 fancy Pansies, dissimilar, was won by Messrs. Downie & Laird, Edinburgh, who staged large well-grown flowers, many of them over 3 inches in diameter, of the following varieties:—Countess of Home, James Gardner, May Tate (seedling), Mrs. W. Brown, John Murray, Mrs. Forsyth, Miss Tofts, W. Cuthbertson, Miss Bliss, Maggie Bell, Mrs. J. Cocker, General Grant, Mrs. James Watt, Mrs. Barrie, Ruby (seedling), Peter Nicol, Mrs. W. Murray, Robert Laird, Mrs. Taylor, Catherine Agnes, Mrs. G. Grant, and three unnamed seedlings.—M.

THE TREE PÆONY.

IT is much to be regretted that this fine plant, the *Pæonia Moutan*, with its numberless fine distinct varieties, should be so little grown as it is in this country.

True, it is of precocious habit, and comes so early into flower as often to suffer from our too frequent spring frosts; but such a glorious plant is well worth protecting, and a very slight degree of shelter should suffice, since it is not the winter frosts that harm the plant, which is capable of enduring all but our severest cold, but the spring frosts which catch the tender budding flowers.

Shortly before his death, Mr. Fortune published some very interesting particulars respecting the Tree Pæony in the *Gardeners' Chronicle* (N. S., xiii., 179). He states that the Tree Pæony is found wild on the mountains of the central provinces of China, and is cultivated as a garden plant in all parts of the Empire. It was first seen by Europeans in the gardens about Canton, the Canton gardeners carrying on a large trade with the Moutan growers, who bring the plants yearly from the provinces of Hoo-nan and the western parts of Kiang-nan, a distance of at least 1,000 miles. This takes place in winter, when the plants are leafless and in a state of rest. The roots are packed in baskets, open at the top, with scarcely any soil adhering to them, and in this simple manner are distributed without injury over all the Empire. On their arrival in Canton

they are potted, and as soon as the flower-buds are fairly formed, the plants are eagerly bought up, to ornament balconies, halls and gardens. The Moutan, when brought into the hot climate of the south, will not thrive for any length of time; strong and vigorous when received, it blooms well the first year, but, being deprived of its natural period of rest—that is, a cold winter—it soon gets out of health, and consequently the Southern Chinese rarely attempt to preserve it after it has once bloomed, but keep up the constant yearly trade with the Moutan country. Thus we learn that we may give the Moutan as much heat as we like in summer, but it must have a period of cold perfect rest in winter.

The propagation and management of the plant seem to be much better understood by the Chinese than by our own growers, who complain that they cannot propagate it with facility. The Chinese method of propagation is by grafting. In the beginning of October, large quantities of the roots of one of the herbaceous Pæonies are collected, to be used as stocks for the Moutan. The bundles of tubers which form the root are pulled in pieces, and each of the finger-like rootlets forms a stock to be grafted. The scions used are not more than from $1\frac{1}{2}$ to 2 inches in length, and consist of the points of the shoots formed during the preceding summer. The base of each scion is cut in the form of a wedge, and inserted in the crown of the finger-like tuber, which is then tied up and clayed round in the usual way, and the operation is complete. When a large number have been thus prepared, they are taken to the nursery, where they are planted in rows about $1\frac{1}{2}$ foot apart, with the same distance between the rows. In planting, the bud at the point of the scion is the only part which is left above ground, the part where the union is destined to take place being always buried beneath the surface.

Many thousands of plants are grafted in this manner every autumn, and it is rare that a graft fails to grow. In about a fortnight the union is complete, and in the following spring the plants are well established and strong, and frequently produce blossoms. A plant which has only one stem and one flower-bud, is of more value in the eyes of the Shanghai nurseryman than when it becomes larger.—T. M.

REGISTER OF NOVELTIES.

NEW PLANTS.

CATTLEYA WHITEI, *Hort.*—A fine and distinct Brazilian species with stout dwarf pseudobulbs bearing one or two thick oblong leaves, and a short scape supporting about two large handsome flowers with the sepals and petals of a dilute dull purple colour, and the beautifully fringed lip a rich magenta-purple blotched with orange in the central part; 1st-class Certificate R.H.S., July 25.—Low & Co.

COMPARETTIA FALCATA VERA, *Hort. Lawrence.*—Under this name a very pretty Ecuadorian Orchid of dwarfish habit was recently shown, which is probably, as suggested in *Gard. Chron.*, the *C. speciosa*, Rehb., which has a broad lip of a rich orange colour even when dried; it bears a curving raceme of numerous flowers which have a broad conspicuous emarginate lip and a long slender spur; the colour of the lip is remarkable and very effective—a bright apricot or clear reddish orange; 1st-class Certificate R.H.S., July 25.—Sir T. Lawrence, Bart.

COMPARETTIA MACROPECTRON, *Rehb. f. et Triana* (*Gard. Chron.*, N. S., x., 524).—A new Grenadan species of ornamental character, with small very short pseudobulbs, oblong-ligulate leathery leaves, and short drooping racemes of flowers, which are falcately spurred, and of which the oblong dorsal sepal and the ovate petals are pale pink, and the lip is broadly-oblong or roundish two-lobed, the colour bright rosy pink with numerous deeper coloured pencillings; 1st-class Certificate R.H.S., July 25.—F. A. Philbrick, Esq., Q.C.

CYPRIPEDIUM MORGANIANUM, *Rehb. f.* (*Gard. Chron.*, N. S., xiv., 131).—One of the most beautiful of the Lady's Slippers, and a hybrid raised between *C. Veitchii* (mother) and *C. Stonei*. The leaves are ligulate obtuse, green; the peduncle three or more flowered, the dorsal sepal elliptic apiculate delicately tinted with rose, the petals long broadly ligulate slightly twisted, whitish sulphur with numerous brown mauve blotches and stripes, and the lip brownish mauve; it is said to be more attractive than *C. Stonei platytanum*, to which it bears some resemblance.—Veitch & Sons.

CYPRIPEDIUM NITENS, *Rehb. f.* (*Gard. Chron.*, N. S., ix., 398).—A pretty hybrid Lady's Slipper, bred between *C. villosum* and *C. insignis* Maulei; it has dark green leaves, a hairy peduncle, and handsome flowers, having the upper sepal ovate obtuse coloured as in Maulei, and ligulate-oblong wavy petals of a shining light brown and ochre as in *villosum*, the lip being subconical in the way of *villosum*.—Veitch & Sons.

CYPRIPEDIUM VERNIXIUM, *Hort. Veitch.*—A hybrid raised between *C. Argus* and *C. villosum*, the latter being the pollen parent. The plant is of robust habit, the leaves being as large as those of *C. villosum* with the hieroglyphic markings of those of *C. Argus*; the flowers are from four to five inches across, in shape coming nearest to those of the pollen parent, with the petals longer, narrower, and less deflexed; in colour they present a remarkable combination of ochreous brown, crimson, and green, with fainter spots on the petals than in *C. Argus*, and with the glossy varnished surface of *C. villosum*.—Veitch & Sons.

GREVILLEA ANNULIFERA, *F. von Muell.*—An ornamental evergreen greenhouse shrub, introduced from Western Australia, and flowered at Kew in July last. It is a glabrous shrub, with the rigid pinnate leaves cut into linear pungent segments which are divergent and ascending; the white flowers grow in rather large many-flowered racemes from 3—5 of which are collected at the ends of the branches. The odour is unpleasant. Introduced in 1880.

HESPERALOE YUCCIFOLIA, *Engelm.*—A very striking and interesting Texan liliaceous plant, producing a rosette of long narrow channelled dry-textured leaves whose margins are fringed with whitish threads, and from the heart or centre a flower stem 3—4 ft. high, terminating in fascicles of pale rose-coloured flowers loosely disposed in racemes, and remaining for a long time in bloom.—T. S. Ware.

LASTREA MONTANA CORONANS, *Stansf.*—A finely crested variety of the native fern sometimes called *L. Oreopteris*; the apex of the frond is developed into a larger, and the apices of the pinnæ in smaller roundish crispy tufts, which give it a very elegant appearance; 1st-class Certificate R.H.S., Aug. 8.—F. W. & H. Stansfield.

PHALENOPSIS VIOLACEA SCHRODERI, *Hort.*—A very charming variety of this somewhat new Bornean species. The foliage is of a bright green, and the inflorescence a short erect raceme; it differs from the type in having larger flowers, the sepals and petals being broad and wholly purple instead of green, the lip also being of a deeper amethyst purple; 1st-class Certificate R.H.S., Aug. 8.—Veitch & Sons.

SCOLOPENDRIUM VULGARE CRISPUM MULTIFIDUM, *Stansf.*—A fine evergreen hardy fern, with erect vigorous strongly crisped sterile fronds, which differ from the ordinary form in being multifidly divided at the apex; it is a sterile form; 1st-class Certificate R.H.S., Aug. 8.—F. W. & H. Stansfield.

STAPELIA PULCHELLA, *Masson* (*Gard. Chron.*, N. S., xviii., 199).—A pretty succulent greenhouse plant, introduced about four years since by H. Buckley, Esq., to the Birmingham Botanic Garden. It has four-angled stems 2—4 inches high, furnished with stout teeth, and star-shaped flowers about two inches in diameter, of a sulphur yellow, covered with numerous purple-brown dots.—W. B. Latham.

TULIPA DIDIERI, *Jordan* (*Bot. Mag.*, t. 6639).—“One of the finest of all the known Tulips.” It is a hardy or nearly hardy bulb, a native of Italy, and has an erect stem 1—1½ ft. high, with 3 or 4 somewhat glaucous oblong lanceolate leaves, and campanulate flowers, of a bright crimson with a cuneate purple blotch an inch high bordered with yellow covering the base of each segment; flowers in May.—Kew.

NEW FLOWERS.

DAHLIA (*Bouquet*), *Gem.*—A charming variety of dwarf habit, with abundant double flower-heads of small size and perfect form, the colour a bright crimson scarlet; 1st-class Certificate R.H.S., July 25.—Turner.

FUCHSIAS.—*Bountiful*, clear red tube and sepals, dark purple corolla, very free and fine, excellent habit. *Ellen Lye*, white tube and sepals, deep pink corolla margined with orange, very stout and fine shape, excellent habit. *Final*, brilliant red tube and sepals, dark purple corolla, very fine in all its parts, a grand show variety. *Freedom*, creamy white tube and sepals, magenta pink corolla, very fine shape, and wonderfully free and good. *Harriet Lye*, creamy white tube and sepals, lilac pink corolla edged with bright rose, extra fine show variety, and excellent habit. *Henry Brook*, brilliant coral red tube and sepals, large and finely formed purple corolla, fine and free habit; one of the best yet raised by Mr. Lye. *Mr. Hooper Taylor*, red tube and sepals, rich blue corolla, one of the most striking blue-petalled varieties yet raised, extra fine for show purposes. *Mrs. Bright*, white tube and sepals, clear magenta scarlet corolla, capital habit, an extra fine exhibition and decorative variety. *Mrs. King*, white tube and sepals, rich carmine corolla dashed with pink, good habit, very fine and free. *Rival*, bright red tube and sepals, rich bright purple corolla; a very fine variety indeed for exhibition and decorative

purposes. *Thomas King*, pale soft coral red tube and sepals, broad and very fine rich deep purple corolla, sometimes handsomely striped with bright red, fine habit and an excellent show variety; all raised by Mr. James Lye.

GLADIOLUS.—*Ala*, fine spike of large flowers of a rich magenta rose, the base of the segments white which is continued upwards as a central bar. *A. F. Barron*, a grand variety, with noble spikes of large flowers of a clear scarlet, the segments marked with a central streak of white. *Bono*, massive spike of large showy flowers of a dark crimson scarlet, the lower divisions being flushed with rosy purple. *James McIntosh*, massive spike, the individual flowers large, with broad segments, salmon-scarlet streaked with darker scarlet, the lower divisions crimson at the base. All 1st-class Certificate R.H.S., Aug. 8, and all from Messrs. Kelway & Son.

GODETIA, *Satin Rose*.—A beautiful hardy annual, of compact habit, a selection from Lady Albemarle; it has well rounded flowers, which are of a soft rose colour with a satiny gloss, and thus remarkable for its brilliancy and effectiveness; 1st-class Certificate R.H.S., Aug. 8.—Carter & Co.

PELARGONIUMS (Single Zonal).—*Atala*, dwarf and free-flowering, with large trusses of large finely rounded bright orange-scarlet flowers.—Pearson. *Eva*, free-growing, with the blossoms thrown well up in fine bold trusses; flowers finely shaped, of a brilliant magenta scarlet.—Pearson. *Kléber*, very fine, with rather loose trusses, the flowers of a fine magenta scarlet, with bright scarlet blotch at base of the upper petals; fine rich colour.—Lemoine. *Lumen*, dwarf habit, with bold trusses of large flowers, finely rounded in form, bright scarlet with distinct white eye.—Pearson. *Miss Hamilton*, very dwarf habit, distinct and pretty; trusses large, the flowers large and finely formed, of a beautiful blush white.—Pearson. *Olive Carré*, free-flowering and vigorous in habit; trusses very large; the flowers large of fine shape, clear rosy-pink, with white blotch at base of upper petals; fine for pot culture. All 1st-class Certificate R.H.S., Chiswick, July 7.

PELARGONIUMS (Double Zonal).—*Aglaia*, very dwarf, and very free-blooming; trusses large and well displayed, the flowers large double purplish scarlet.—Pearson. *Candidissimum plenum*, dwarf and very free-blooming; the trusses medium sized, the flowers large, very double, pure white; the best double white.—Pearson. *Got*, vigorous in growth, with very large full trusses: flowers medium-sized, semidouble, bright scarlet and very showy in character.—Lemoine. *M. Hardy*, dwarf-growing, with medium-sized trusses of large semidouble, delicate rose-lilac flowers.—Lemoine. All 1st-class Certificate R.H.S., Chiswick, July 7.

PELARGONIUMS (Ivy-leaved).—*Comte Horace de Choiseul*, of free trailing habit, and very free-flowering, with medium-sized trusses of large double beautiful rosy-pink flowers marked with streaks of white on the petals; very pretty.—Lemoine. *Comtesse Horace de Choiseul*, of trailing and free-flowering habit, very distinct and showy; flowers very large semidouble, beautiful rose at the centre, shading to magenta towards the edge.—Lemoine. Both 1st-class Certificate R.H.S., Chiswick, July 7.

PELARGONIUMS (Decorative).—*Belle de Jour*, compact in habit, very free flowering, and likely to be good for decorative and market purposes; flowers semidouble, pure white, nearly circular and mallow-like.—Lemoine. *Madame Harman*, dwarf and sturdy in growth, very free blooming; trusses large; flowers large and fine in form, pure white, slightly streaked with purple towards the eye.—Lemoine. Both 1st-class Certificate R.H.S., Chiswick, July 7.

NERIUMS.—*Madamni grandiflorum*, very free flowering double creamy white, distinct and fine.

Mons. Balaguer, a very fine variety, with well-expanded single flowers of a delicate pink, shaded towards the edge with rose. *Sœur Agnes*, free-flowering and pretty, the flowers single, large and pure white.—All from MM. Huber et Cie., and all 1st-class Certificate R.H.S., Chiswick, July 7.

PETUNIA (double), *Mrs. Dunnell*.—A handsome variety, with large, full, and nicely fimbriated fragrant flowers, the colour white heavily blotched with magenta purple; 1st-class Certificate R.H.S., Aug. 8.—Carter & Co.

SWEET PEA, *Bronze Prince*.—A grand new variety of *Lathyrus odoratus*, raised by Mr. Eckford, gardener at Boreatton Park, Shrewsbury; it has large flowers, of which the wings and keel are a deep purple, and the standard is large and well-displayed of a rich reddish bronze tint, very distinct and effective; 1st-class Certificate R.H.S., Aug. 8.—Dr. Sankey.

TROPEOLUM, *Empress of India*.—A grand new bedding *Nasturtium* remarkable for its dwarf floriferous habit, and its rich and brilliant crimson-scarlet flowers; it appears to be well fixed, as even last year in the seed grounds at St. Osyth large breadths of it were perfectly true and uniform in habit and colour; 1st-class Certificate R.H.S., July 25.—Carter & Co.

NEW PUBLICATIONS, &c.

The **BOTANICAL MAGAZINE** for August contains illustrations of the following plants:—*Hedychium gracile*, Roxb. [t. 6638], a Scitamineous plant from the mountains of India growing 2—3 feet high, with lanceolate acuminate leaves having sheathing petioles, and a dense erect cylindrical spike of milk white flowers, with long projecting red stamens.—Kew. *Tulipa Didieri*, Jordan [t. 6639], a handsome hardy bulb, nearly related to the garden Tulip, and more fully described under New Plants.—Kew. *Saxifraga Camposii*, Boiss. et Reut. [t. 6640], a Spanish saxifrage of dwarf densely tufted habit with small flabelliform 3—5 lobed leaves, and abundant large white corymbosely arranged flowers; frequently met with in gardens under the name of *S. Wallaceana*, and a very desirable plant for ornamental purposes; flowers in May.—Kew. *Beschorneria bracteata*, Jacobi [t. 6641], a robust and free flowering acaulescent greenhouse plant related to Agave. It is a native of Mexico, and has lanceolate leaves, glaucous green, firm textured, about a foot and a-half long, growing about 30 in a rosette, and a paniculate inflorescence of cylindrical green flowers, changing to yellowish red, and having a brown inferior ovary.—Kew. *Sonchus Jaquinii*, D.C. [t. 6642], a Canary Island plant, of the Sowthistle family, there called *Pastor's Lettuce*; it is a greenhouse herb, 2 ft. high, with semi-amplexicaul pinnatifid leaves, and large heads of golden yellow flowers.

The **GARDENERS' CHRONICLE** (July 22—Aug. 19) contains:—*Stenomesson Stricklandi*, Baker (p. 102), a pretty dwarfish Amaryllid from Ecuador, with petiolate oblong-lanceolate leaves, and slender scapes a foot high supporting an umbel of 5—6 drooping funnel-shaped flowers which have a green tube and bright red limb segments.—Sir C. W. Strickland, Bart. *Saxifraga Milesii*, Hort. Leichtlin (p. 102), a late-flowered species of the Megasea group from the Himalayas alt. 11,000 ft; the leaves are obovate obtuse, ciliate, and the corymbs of white flowers dense, with glandulose-pubescent pedicels.—Kew. *Acineta Hrubyana*, Rehb. f. (p. 102), a fine New Grenadan epiphyte, with lax racemes of white flowers marked with a few purple spots inside the lip.—Baron Hruby. *Masdevallia Arminii*, Rehb. f. (p. 102), a pretty S. American Orchid in the way of *M. Wageriana*, but with larger flowers of a fine rose colour.—Sander. *Masdevallia tricolor*, Rehb. f.

(p. 102), a pretty New Grenadan novelty coming near *M. Estradæ*, with flowers of a reddish-mauve or purple colour, the lip nearly square, and the tails of the sepals short.—Shuttleworth & Carder. *Odontoglossum Andersonianum tenue guttulatam*, Rehb. f. (p. 102), a pretty sub-variety of the var. *tenue*, beautifully spotted with small brown spots on the sepals and petals, the lip white with a yellow base and a few brown lines.—Low & Co. *Cypripedium nigrum*, Rehb. f. (p. 102), a Bornean species with light green dark-veined leaves, and dark flowers near those of *C. barbatum*, but with oblong acute dorsal sepal, and narrower petals.—New Plant & Bulb Co. *Phalænopsis fasciata*, Rehb. f. (p. 134) a Philippine Island species, with leaves and roots like those of *P. Lüddemanniana*; the flowers are sulphur yellow with cinnamon coloured bars, the lip with the divaricate lateral divisions sulphur-coloured, and the oblong ligulate keeled median division orange with the anterior part light purple.—Low & Co. *Saccolabium fragrans*, Par. & Rehb. f. (p. 134), a tiny Burmese plant, with oblong acute rugose dark green leaves, and racemes of numerous white flowers, having the tips of the sepals and petals and the whole of the lip of a fine mauve purple, the anther orange; the whole plant is not an inch high; the flowers have a most powerful perfume of violets.—Williams. *Vanda Vipan*, Rehb. f. (p. 134), a curious epiphyte, with linear decurved unequally bidentate leaves, and few flowered racemes, the flowers having the outer surface whitish, and the inner greenish in the sepals, ochreous in the petals and marked with close brown-purple lines, the lip being olive-green with the side auricles yellow. Burmah.—Capt. Vipan. *Grevillea annulifera*, F. v. Muell. (p. 134), a handsome greenhouse evergreen shrub from W. Australia; it has rigid pinnate leaves, with linear pungent lobes, and terminal racemes of white flowers.—Kew. *Sarcanthus striolatus*, Rehb. f. (p. 168), a Philippine Island species with short ligulate obtuse unequally bilobed leaves, and panicles of small orange-coloured flowers, the lower part of the spur whitish.—Low & Co. *Ornithocephalus grandiflorus*, Lindl. (p. 168), a Brazilian species, with oblong obtuse leaves, and an erect raceme of many fine white flowers.—De Witte. *Stapelia tsomoënsis*, N. E. Brown (p. 168), a free flowering greenhouse succulent from S. Africa; it has almost glabrous 4-angled repand-dentate stems, and flowers 3 in. in diameter, of a dull smoky purple, with some of the ridges yellowish.—Kew, and Birmingham Botanic Garden. *Nepenthes coccinea*, Hort. (p. 169, fig. 29), a fine American hybrid, with large flask-shaped pitchers, which are crimson speckled with yellow, distended at the base, and having broad toothed wings, the rim finely ribbed, the ribs red and black. *Hesperaloe yuccifolia*, Engelm. (p. 199), an interesting greenhouse liliaceæ, with narrow dry thread-edged leaves, and fascicled racemes of pale rose flowers. Texas.—Ware. *Begonia lineata*, N. E. Brown (p. 199), a pretty species introduced from Java, with a tuberous rootstock, oblique cordate-ovate leaves, which die down annually, and dichotomous cymes of pale pinkish flowers about an inch across.—Veitch & Sons. *Stapelia pulchella*, Masson (p. 199), a pretty member of an interesting family of greenhouse succulents, with quadrangular toothed stems and sulphur-coloured flowers dotted with purple-brown; native of S. Africa.—Birmingham Botanic Garden. *Masdevallia hieroglyphica*, Rehb. f. (p. 230), a New Grenadan species with pallid flowers as large as those of *M. Estradæ*, which are funnel-shaped at the base, the dorsal sepal being flat with three dark lines and numerous small dark spots, and the lateral ones nearly square with a dark purplish area, and having long tails which are suddenly deflexed.—Sander. *Pachysandra terminalis*, Sieb. et Zucc. (p. 230), a hardy Japanese subevergreen

perennial with the broadly-oblong leaves crowded towards the ends of the branches, green, with a whitish marginal variegation which so curbs their growth that they become concave, and having erect petioles the terminal group resembles a vase in shape.—G. Paul.

The ORCHID ALBUM (Parts XI.—XIII.) gives illustrations of the following species and varieties:—*Angræcum eburneum*, Du Pet. Th. [t. 41], a grand African species, with large white-lipped flowers, the specimen grown by D. B. Crawshay, Esq. *Dendrobium superbum*, Rehb. f. [t. 42], a finely-coloured form of this showy Orchid grown at Sandringham; more familiarly known as *D. macrophyllum*. *Odontoglossum Alexandra flaveolum*, Williams & Moore [t. 43], a pretty primrose-coloured variety, with a deeper yellow red spotted lip, flowered by G. Hardy, Esq. *Lælia anceps Dawsoni*, Anderson [t. 44], one of the most charming of Orchids, with white flowers, and rich purple lip, from the collection of the late R. B. Dodgson, Esq. *Cattleya Trianae*, Lind & Rehb. f. [t. 45], a well-known beautiful species, of which many varieties are in cultivation; the figure represents the type form grown in Mr. Dodgson's collection. *Miltonia cuneata*, Lindley [t. 46], a distinct and pleasing plant, with brown-sepalled flowers, and a large white lip, from the collection of W. Cobb, Esq. *Odontoglossum Alexandra*, Bateman [t. 47], a charming form of this lovely species, with large richly rose-tinted flowers, from the collection of H.R.H. the Prince of Wales. *Vanda cœrulescens* Griff. [t. 48], a remarkably neat and pleasing Orchid, one of the few blue-flowered species, the flowers being mauve-blue with rich violet-blue lip, from the collection of C. Dorman, Esq. This completes the first volume, which is dedicated, by permission, to H.R.H. the Princess of Wales.

The new volume opens with a splendid figure of *Lælia autumnalis atrorubens*, Backh. [t. 49], a variety in which the large showy flowers are of a brilliant purple crimson, paler towards the centre, with the lateral lobes of the lip white; flowered by W. Thompson, Esq. *Zygopetalum Clayii*, Rehb. f. [t. 50], a fine hybrid raised between *Z. crinitum* and *maxillare*, with purple-brown green barred flowers, having a broad violet-purple lip; flowered by Mr. Williams. *Cælia bella*, Rehb. f. [t. 51], a scarce and pretty dwarf growing species, from the collection of J. C. Bowring, Esq.; it has the sepals and petals white tipped with rosy purple, and the lip clear yellow. *Odontoglossum maculatum*, one of the handsomer species of this prolific genus, in which the narrow sepals are rich brown, the broad petals yellow brown-spotted near the base, and the lip also yellow cordiform and spotted both at the base and margin; figured from the collection of W. Salt, Esq.

ICONOGRAPHY OF INDIAN AZALEAS (Nos. 8—11). The varieties figured are:—22. *Dame Mathilde*, large salmon edged with white; 23. *Frau Johanna Andrea Winkler*, white with red stripes; 24. *Souvenir du Prince Albert*, pinky-rose edged with white, semi-double, late blooming; 25. *Deutsche Perle*, a good double white; 26. *Vicomte de Forceville*, bright rose, cup-shaped; 27. *Comte de Chambord*, salmony-rose edged with white, large and fine shape; 28. *Regierangsralh von Eschwege*, compact double pinkish rose, very effective; 29. *Noble Belgique*, white edged pale pink striped with red; 30. *Docteur de Mil*, fine double bright red; 31. *Sigismund Rucker*, large, veiny lilac-rose, edged with white, fine shape; 32. *Concordia*, deep rosy-red, double; 33. *Cordon Bleu*, rose flushed with violet, and with orange tint in centre. Of these 12 fine varieties—all good—five are fixed sports.

The GARDEN (July 22—Aug. 19) contains figures of *Cattleya Trianae* [pl. 346], a poor washy representation of three forms of this beautiful plant.—Back-

house. *Freesia refracta alba*, and *F. Leichtlinii major* [pl. 347], two pretty Irids, the former with white, the latter with pale yellow flowers blotched with orange; the flowers are long funnel-shaped, and grow erect from one side of the refracted tip of the flower scape.—C. Smith. *Phalenopsis Stuartiana nobilis*, and *P. Schilleriana* [pl. 348], two of the finest of Eastern Orchids.—Low & Co. *Clematis Sieboldii* and *C. Jackmanni* [pl. 349], both well-known beautiful hardy climbers, the former too bright in the centre, the latter too pointed in the sepals, in this respect more like the variety named Thomas Moore. *Oncidium cucullatum giganteum* [pl. 350], a very pretty Andean Orchid, with the flowers in racemes, having short olive brown sepals and petals, and a large transversely reniform emarginate rosy-tinted lip spotted with crimson.

GARDEN GOSSIP.

THE state of the FRUIT CROPS in the United Kingdom and Ireland has been, as usual, tabulated by the *Gardeners' Chronicle* (N. S., xviii., 200), but the record is by no means encouraging. The nett results of the returns thus brought together are as follows:—

APRICOTS.—Under average generally; best crops in Eastern, Midland, and Western Counties.

PLUMS.—Much under average; quality inferior.

CHERRIES.—Much under average, except Morellos; best returns from Bedfordshire and Oxfordshire.

PEACHES AND NECTARINES.—Under average, except in Southern and Western Counties.

APPLES.—Very much under average.

PEARS.—Very much under an average; quality generally reported as likely to be inferior.

SMALL FRUITS.—Good average generally; over average in Eastern, Southern, and Western Counties.

STRAWBERRIES.—Good average generally.

NUTS.—Under average except in Eastern, Midland, Southern, and Western Counties.

WALNUTS.—A thin crop generally.

The records of the last ten or a dozen years are not at all encouraging. In 1870 fruit crops of all kinds were generally abundant; in 1871 scanty and late; in 1872 universal failure; in 1873 under average; in 1874 and 1875 over average; in 1876, 1877, 1878, 1879, 1880—five years in succession—general failure; in 1881 a fair average; and in 1882 deficient generally.

—THE published reports as to the condition of the POTATO CROP are not so unfavourable as might have been anticipated. There seems to be, at present, a prospect of a fair crop, in spite of the disease having made its appearance in a severe form, especially in the South and West. The early sorts appear to be most affected with the disease, while Magnum Bonum and Champion hold their own as hardy varieties relatively unhurt by the fungus. The changes which, in the course of a few days, are seen to occur in patches of sound potatoes growing near diseased ones, seem to suggest that it would be wise to destroy—burn—the shaws immediately the fungus is discovered to have taken hold of them.

—It appears that GILBERT'S CABBAGE BROCCOLI now boasts the *alias* of *Chou de Burghley*. Mr. H. Knight speaks very highly of it, as it deserves, in the *Gardeners' Chronicle*. He says that this esculent, now becoming widely

known to the horticultural world, is destined to lift its head high enough to be crowned king of the brassica tribe. I have grown it, he adds, during the past twelve months from plants obtained from Mr. Gilbert, and found it superior to anything of either the cabbage or broccoli kind. In fact, I consider it the nearest approach yet attained to animal marrow in the vegetable kingdom. It will be a boon to the cottager when he becomes possessed of a vegetable that will defy the rigours of winter. I have now (July) beautiful specimens of it, becoming hard and white, of a conical shape.

—THE pretty little NERTEA DEPRESSA is not so generally grown as it deserves to be. The *Irish Farmer's Gazette* tells us that it does best grown in a cool frame in a rather shady aspect. It may be grown in shallow seed-pans, but better in small pots, the thorough drainage of which is most important, and should be secured by plenty of small potsherds, and a thin layer of moss over them. The best soil is beath mould, with a considerable mixture of grit or coarse sand. In potting, the plant should be kept somewhat up. The pots should be plunged in coal-ashes or sand, and thus being in a cool medium, the plants are not so likely to suffer from want of moisture at the roots, as they otherwise would be; they should never be allowed to get dry or want moisture at the roots. They are benefited by an occasional dewing overhead with soft, tepid water. In the autumn, when berried, they may be brought to the house, greenhouse, or wherever it is desirable to keep them for ornament. In the spring they may be returned to the frame, and treated as above. As to temperature, that of a cool frame kept somewhat close is all that is required. When berried it will accommodate itself to more lightsome and drier quarters.

—THE varieties of WALLFLOWER are most useful for furnishing the greenhouse during the winter months; not so much for the beauty of their flowers, which is not to be despised, as for the gratefulness of the odour they emit. To have the plants large enough to flower in the winter the seed should be sown out of doors in March, and the seedlings transplanted into beds about ten inches apart. They can be lifted and potted in the autumn, and then placed in the greenhouse; or if more convenient a portion only need be taken into the greenhouse, those remaining being plunged in coal-ashes until required for a succession.

—MR. T. MEEHAN, in discussing the laws which govern the PRODUCTION OF SEED IN WISTARIA SINENSIS, states that the Wistaria when supported grows amazingly, but is seedless; on the contrary, the self-supporting so-called "tree Wistarias" produce seeds abundantly.

—ONE of the curiosities of the garden, none too often met with, is the GREEN ROSE, *R. indica viridiflora*, which, according to Mr. W. Paul, was first seen in France in the possession of M. Verdier, of Paris, in 1855, he having received it from an American nurseryman of Augusta, Georgia. The late Mr. Mieliez of Lille, distributed it as a new rose in 1857. Mr. Ellwanger in his recent book, *The Rose*, states that it is "probably a sport from the old Blush or one of its immediate descendants; its peculiarity consists in green flowers, which are freely produced; though curious, they are not attractive, and there is no value in it save as a curiosity."

— **M.** CRÉPIN some time since gave in the *Flore des Serres* (xxiii. 104) the following list of **YELLOW ROSES** (species, not garden varieties:—*Rosa lutea*, described by Dalechamp in 1587, and a native of Asia Minor, Persia, Afghanistan, and naturalised in some parts of Europe. *R. hemisphærica*, described first in 1762, and afterwards by Aiton as *R. sulphurea*; the single wild form has not been known till comparatively recently, when it has been discovered in Asia Minor; *R. Rapini* and *R. Bungeana* are recent synonyms. *R. maracandica* from Turkestan; and *R. turkestanica*, neither of which are fully known. *R. Ecæ*, a native of Afghanistan and perhaps a variety of the following. *R. xanthina*, a Chinese species mentioned by Lindley on the faith of a drawing in Lambert's library.

— **IN** the Prize Collections of **ZONAL PELARGONIUM** cut blooms, staged by Messrs. Cannell & Sons, at the Pelargonium Society's Show, the following sorts were included:—36 singles: Metis, Wheel of Fortune, Lunen, Lizzie Brooks, Mrs. Patchitt, Tom Bowling, Celia, General Grant, Atala, Mr. Goodwin, Dudu, Commander-in-Chief, Dr. Orton, Sunbeam, Beatrice, J. B. Miller, Future Fame, and Edward Smith, shades of scarlet and crimson; P. Bauer, Eurydice, E. V. Sanberry, &c., pink; Mrs. J. Gibson, Madame Colson, Ceres, President McMahon, Fanny Catlin, &c., salmon. 36 doubles: Caesar Borgia, Colonel Flatters, Grand Chancellor Faidherbe, Charles Darwin, Representative Bandin, Aglaia, Magenta King, shades of purple-crimson and crimson; President Louis Simon, M. Gelein Lowage, F. V. Raspail, Mons. C. Routier, Gorgeous, Serjeant Flott, Gambetta, Lord E. Cecil, and Mr. W. E. Gladstone, shades of scarlet; Louis Porrier, J. P. Stahl, and Mons. Dupuis, salmon; Attraction, E. André, Sylvia, Emile de Girardin, Cæsus, Clara Pfitzer, and M. Littre, pink; La Niagara, Flacon de Neige, and Heroine, white. They were an exceptionally fine lot, and shown in splendid condition.

— **THE** STORING OF CELERY is the subject of the following note in the *Farmer's Gazette*:—"Last year I read of the market gardens at Amiens, and among other things I learned that the French were in the habit of digging up the celery before it began to pipe, and pitting it, by which means they kept it perfectly good till April or May. I could not find that any one had tried the French plan in England, Ireland, or Scotland, and was advised not to try it. I had, however, planted a large supply of celery, and I did try it. On the 2nd of November I had all my celery dug up, cut off the green leaves at top and part of the clayey roots, and then, in a trench four inches deep and about eighteen inches wide, I built up the celery, heads and tails, about 15 inches high. Some I put sandy clay amongst, others I put directly on one another, but in both cases I covered in with sandy clay about five inches deep, and along the ridge of the pit put a wisp of straw to keep off the rain. Unfortunately, I allowed the pit to be opened in January, and they were so good and there was such a run on them, that all were used up by the 1st of April."

— **THE** best of the **BLUE WATER LILIES** for a tropical Aquarium is *Nymphæa Dauterneyana*. The flowers are large, pale blue, with a cluster of yellow stamens, each tipped with a

blue point. This *Nymphæa* is a very rapid grower, and extremely floriferous. At Glasnevin whence, according to Mr. F. W. Moore, it was obtained from the Oxford garden, it produced as many as eleven flowers in four days, which, unlike most of the other kinds, remained open all day and closed in the evening. They are nicely scented. The leaves are very handsome, with entire margins, and produce in the angle of the opening, small plants which grow readily. *Nymphæa dentata major* is a grand thing, with flowers from 7 to 9 inches in diameter, pure white, very fragrant, and opening very wide.

— **IN** the **NARCISSUS OBVALLARIS** *var. GRAND TRUNK*, from Mr. T. Smith, of Newry, Mr. Burbidge thinks we have the true *N. obvallaris maximus*, a variety quite different from *N. maximus*, or College Garden Daffodil, from which it differs in having a shorter and broader corona with the perianth segments broader and more imbricate. It is a grand flower, and Mr. Smith's name of Grand Trunk Daffodil may well serve for this, which is doubtless a giant form of the smaller Tenby Daffodil, *N. obvallaris*.

— **THE** Japanese **OMPHALODES KRAMERI** is a beautiful addition to our hardy plants. It is larger in growth than *O. verna* or *O. Luciliae*, the leaves being ample, and the flowers as large as a six-penny piece, and of a rich blue colour. It was introduced by the Messrs. Veitch, of Chelsea, in whose Coombe Wood nursery the plants are evidently quite at home in the open border.

— **THE** American **AZALEA MISS BUIST**, sent out last year by Mr. B. S. Williams, proves to be an elegant little plant, and is meeting with much favour; it is of the *amœna* type, and very free flowering; the blossoms are pure white, of good size, and of great substance, and the flower is quite a model in respect to form.

— **IT** has been noted that **ADIANTUM FRONDS USED FOR BOUQUETS**—those of *Adiantum cuneatum* especially, may have their lasting powers greatly prolonged by first giving them a few hours' bath in water. This effectually prevents the fronds getting curled and withered very shortly after being cut, as is otherwise their wont.

— **M.** HENRI VILMORIN has been designated a Chevalier of the Legion of Honour—a recognition of well-directed horticultural work tending to the public benefit, which has been most thoroughly and most honourably won.

In Memoriam.

— **DR.** CHARLES EDOUARD LUCAS, proprietor and director of the Pomological Institute of Reutlingen, died on July 24, at the age of 66 years. He was a thorough-going pomologist, and devoted his whole life to that branch of horticulture, in which he was the most valued authority of Germany. His loss will be greatly regretted, not only by all those who knew him, but also by all those beyond the frontiers of Germany who have been honoured with his friendship.



J.L. Macfarlane del.

Pompon Dahlias

Chromo Stroobant, Ghent

1 Carl Mendel 2. Comtesse Von Sternberg 3. Wilhelm Nitsche 4. Lady Blanche

NEW POMPON DAHLIAS.

[PLATE 571.]

THE Pompon Dahlias form a very distinct class of these popular flowers, and are of great value as decorative plants, since from the moderate size of the blossoms or flowerheads as they are properly called, and their neat form and pleasing colours, they are better adapted than most of the show kinds for garden ornamentation, as well as for indoor decorations where large vases of cut flowers have to be furnished. The best form in which to exhibit them is that of tying them up in neat free bunches of from six to ten or twelve flowers, with foliage and buds, and to set them up like roses in stands of green moss; in this way they have a remarkably good and pleasing effect.

We have recently devoted a plate to the illustration of new show sorts, and another

to some single-flowered varieties of *Dahlia gracilis*, and we now complete the series by offering a group of Pompons, for specimens of which we are indebted to Mr. C. Turner, of Slough, a veteran in the culture and exhibition of the Dahlia, and the victor in many a floral contest.

The varieties we have figured, and which were selected for their distinctness of character, are:—

Fig. 1. CARL MENDEL, a fine crimson scarlet.

Fig. 2. COMTESSE DE STERNBERG, yellow tipped with white.

Fig. 3. WILHELM NITSCHKE, rosy-purple tipped with white.

Fig. 4. LADY BLANCHE, white.

T. MOORE.

GRAND NATIONAL DAHLIA SHOW.

NOTWITHSTANDING that the Dahlia is generally acknowledged to be the Queen of Autumn flowers, and notwithstanding that it was once cultivated with warm-hearted zeal all over the country, the fact remained that for some years past there had been no great Dahlia Show in the metropolis, such as we had been accustomed to see in former years. It was not that the interest which the flower-loving public or the growers had taken in the Dahlia had died out, although at first sight this might seem to be the case, but there was clearly a lack of energy on the part of the growers, both professional and amateur, brought about by the want of some stimulus such as an exhibition affords, and it was thought that if the flower was to maintain its position in public estimation, a revival of the great shows of former years should be attempted. The attempt was made, chiefly through the efforts of the late Mr. G. Smith, Mr. C. Turner, and Mr. Cannell, and that it proved thoroughly successful, the show held at the Crystal Palace on September 8th and 9th, which was the outcome of this movement, and was a thoroughly representative and national one, bears sufficient evidence.

The only department of the show which was not well maintained was that of the pot

plants. These may be made to form very effective specimens, and it was desired by the framers of the schedule to show that if grown on under glass the forms of *D. gracilis* at least would do much to supplement the dull colours which prevail amongst Chrysanthemums used for conservatory decoration. The plants shown were, however, not at all satisfactory, and unless they are brought in better condition in future the class must be abolished. That they can be grown so as to form specimens of striking beauty, there is no doubt whatever.

The time for making this effort to revive a grand Dahlia show was very opportune, for the advent of the single Dahlias had excited much enthusiasm in certain quarters, and introduced fresh ground to be broken at the proposed show. If the singles did not come up to the expectations formed of them for show purposes, the number of exhibits and the interesting display proved at least that our principal growers cannot afford to pass them over as the "rubbish" which some critics describe them to be. There is one very great mistake often made respecting them, and that is, to regard them as rivals of the show and fancy varieties; they are not so in any sense, as we have more than once pointed out, but should be rather looked upon as new material

waiting to be moulded by the hands of admiring cultivators into more and more beautiful border flowers, for which purpose, we must repeat, the two dwarf groups typified by *D. gracilis* and *D. coccinea* are, speaking generally, infinitely to be preferred.

The show was held at the Crystal Palace in consequence of the handsome contribution made to the prize fund by the Directors. Whether it is to be repeated, or whether this help will be again forthcoming is not yet known, but many growers have expressed a desire that the show might be an annual one. The principal prize collections, which are all we can find space for, were the following:—

Class A. 48 show varieties, distinct (nurserymen).—1st, Messrs. Keynes & Co., Salisbury, with James Cocker, Lady Gladys Herbert, Prince Arthur, Gaiety (sport), Hon. Mrs. Percy Wyndham, Flora Wyatt (self), George Rawlings, George Edwards, Arbitrator, Joseph B. Service, Henry Bond, F. Smith, Herbert Turner, James Stephen, Duke of Connaught, Joseph Ashby, Mrs. Harris, W. P. Laird, William Rawlings, Goldfinder, George Dickson, Henry Walton, Rosy Morn, Enchantress, Emily Edwards, Mr. Spofforth, Admiration, Annie Gibbon, Champion Rollo, Mrs. Stanscombe, Walter H. Williams, Thomas Goodwin, Rifleman, Prince Bismarck, Canary, Clara, John Bennett, Michael Saunders, Prince of Denmark fine, Flag of Truce, James Vick, Miss Cannell fine, Lord Chelmsford, Senator a grand novelty, Triumphant, and three other Seedlings. 2nd, Mr. C. Turner, Slough, with Henry Walter, Lady Gladys Herbert fine, James Vick, Royal Queen, Prince Bismarck, Aurora, James Service, Herbert Turner exquisite, the premier flower of the show, Fred. Smith (self), William Rawlings, Crown Prince, John Bennett, Alexander Cramond, Criterion, James Cocker, Ethel Britton, Christopher Ridley, Perfection of Primroses, John Wyatt, Modesty extra, Rev. J. Goodday, Acme of Perfection, Lady Wimborne, Constancy, Prince of Denmark, Charles Wyatt (self), Joseph Ashby, John Walker, John Neville Keynes, Richard Edwards, Burgundy, Flag of Truce fine, Mr. J. C. Reid, Goldfinder, Thomas Goodwin, Cardinal, George Rawlings, Sunbeam, Emily Edwards, Hon. Mrs. Percy Wyndham, Mr. Spofforth, Joseph Green, H. W. Ward, John Slater, George Smith, and two or three Seedlings—a collection which ran the 1st prize one very close indeed. 3rd, Mr. W. Boston, Carthorpe, Bedale. 4th, Messrs. H. Cannell & Son, Swanley.

Class B. 24 show varieties, distinct (nurserymen).—1st, Mr. C. Turner, with Henry Walton, George Rawlings fine, Lady Gladys Herbert, Burgundy, Perfection of Primroses, H. W. Ward, Alexander Cramond, Royal Purple, Lady Wimborne, Constancy, John Standish, Julia Wyatt extra, Prince Bismarck, Goldfinder, Joseph Green, Hon. Mrs. Percy Wyndham, James Vick, Charles Leicester, John Neville Keynes, Ethel Britton, William Rawlings, Herbert Turner, John Wyatt, and a Seedling. 2nd, Messrs. Keynes & Co., with W. P. Laird, Prince of Denmark, Fred Smith, William Rawlings, Mrs. Stanscombe, George Dickson, William Dawkins, Duke of Connaught, James Vick, George Rawlings fine, George Barnes (like self), Prince Arthur, Emily Edwards, Joseph Green fine, Enchantress, Joseph Ashby,

Thomas Goodwin, Walter H. Williams, James Cocker, and two Seedlings. 3rd, Mr. W. Boston, Bedale. 4th, Messrs. Harkness & Sons, Bedale.

Class C. 12 show varieties, distinct (nurserymen).—1st, Messrs. Paul & Son, Cheshunt, with W. H. Williams, George Barnes (self), Lord Palmerston fine, Constancy fine, J. W. Lord, Criterion, Benjamin Crossland, Emily Edwards, James Service, Flora Wyatt, Christopher Ridley fine, and George Crichtett. 2nd, Mr. J. Walker, Thame, who showed a striking new flower, Mrs. Tranter. 3rd, Messrs. Saltmarsh & Sons, Chelmsford. 4th, Messrs. R. T. Veitch & Son, Exeter.

Class D. 24 fancy varieties, distinct (nurserymen).—1st, Messrs. Keynes & Co., with Miss Lily Large, Hercules, Jessie McIntosh, Professor Fawcett, Hugh Austin, John Forbes, Parrot, Chorister, Polly Sandell, Henry Glasscock, Mons. Chauvière, James O'Brien, Maid of Athens, Mrs. Saunders, George Barnes, Singularity, Gaiety (sport), John Saunders, Robert Burns, Rev. J. B. M. Camm, and Fanny Sturt. 2nd, Mr. C. Turner, with Peacock, Rev. J. B. M. Camm, Laura Haslam, Miss Browning, Jessie McIntosh, Fanny Sturt, Professor Fawcett, James O'Brien, Annie Pritchard, Chang, Jeannette, John Lamont, Grand Sultan, John Forbes, Gaiety (sport), Lucy Fawcett, George Barnes, Fred Smith, Magiciau, Beauty, Miss Lily Large, Mrs. Saunders, and Edward Peck. 3rd, Mr. W. Seale, Sevenoaks. 4th, Messrs. H. Cannell & Sons. Extra, Mr. W. Boston, Bedale.

Class E. 12 fancy varieties, distinct (nurserymen).—1st, Messrs. Rawlings Bros., Romford, with Hugh Austin, Peacock, Rev. J. B. M. Camm, Chorister, Egyptian Prince, Gaiety, Mrs. Saunders, Hercules, George Barnes, Jessie McIntosh, Barnaby Rudge, and Miss Browning. 2nd, Messrs. Paul & Son, Cheshunt. 3rd, Mr. J. Walker, Thame; this stand contained the premier fancy, Flora Wyatt. 4th, Messrs. J. Gilbert & Son, Ipswich.

Class F. 24 show varieties, distinct (amateurs).—1st, Mr. Henry Glasscock, Bishop's Stortford, with William Rawlings, Ethel Britton, James Vick, Mrs. Harris, Joseph Green, John Neville Keynes, Prince Bismarck, Modesty, Alexander Cramond, The Countess, James Service, Lady Gladys Herbert, Walter H. Williams, Prince Arthur, W. G. Harris, Herbert Turner, Prince of Denmark, Miss Cannell, Rev. J. Goodday, Sunbeam, Miss M. Batchelor, Emily Edwards, Thomas Goodwin, and Mrs. Hodgson. 2nd, Mr. E. Fletcher, Baildon, Leeds. 3rd, Mr. Thomas Hobbs, Bristol. 4th, Mr. W. Godden, gardener to Mrs. Brook, Tovil, Maidstone.

Classes G. and H.—The 1st prizes for 12 and 6 show varieties were respectively taken by Mr. W. Butterworth, Kidderminster, and Mr. F. Masters, Penenden Heath, Maidstone.

Classes I. and K.—The 1st prizes for 12 and 6 fancy varieties were taken by Mr. H. Glasscock, and Mr. J. T. West, gardener to W. Keith, Esq., Brentwood.

Class L. 24 Pompon varieties, distinct (open).—1st, Mr. C. Turner, with Favourite, Comtesse Von Sternberg, Princess Sophie Sopiaha, Nemesis, Lady Blanche, North Light, Amélie Barbier, Titania, Professor Bergeat, Gruss an Wien, Gem, Mabel, White Aster, German Favourite, Garnet, Adonis, Rosetta, Wilhelm Nitsche, Fair Helen, Louis Rodani, Isabel, E. F. Jungker, and Prince of Liliputians—very effectively set up, in open bunches with buds and leaves. 2nd, Messrs. Cannell & Sons. 3rd, Messrs. Keynes.

Class M. 12 Pompon varieties, distinct (open).—1st, Mr. C. Turner. 2nd, Messrs. Keynes & Co. 3rd, Messrs. Paul & Son. 4th, Mr. J. Henshaw, Harpenden.

Class N, 6 Pompons, was very poorly represented.

Class O. 12 singles, distinct (open).—1st, Mr. C. Turner, who showed amongst others Paragon, The

Baron, Foxhall, Firefly, Mauve Queen, Huntsman, Coccinea, Canary Bird, and Yellow Gem—these were very effectively set up by the aid of wires, which the flowers appear to require, as if not inelegantly close-bunched, they are bad travellers. 2nd, Messrs. Keynes & Co. 3rd, Mr. T. S. Ware, Tottenham. 4th, Messrs. Cannell & Sons. In the class for 6 singles, the prizes went to Mr. Turner, Mr. Ware, Messrs. Keynes & Co., and Messrs. Gilbert & Son, in the order named.

A large number of Seedling flowers was staged, the singles being greatly in the ascendant, and the following 1st-class Certificates were awarded (see p. 156):—

Show Dahlias: Senator, Hope, and Condor, all from Messrs. Keynes & Co.; Earl of Ravensworth, said to be a sport from Vice-President, from Messrs. Harkness & Sons. *A Commendation* for its colour was voted to Beauty of the Grove, from Mr. Harris.

Pompon Dahlias: Gem, Little Duchess, Isabel, Favourite, and Mabel, all from Mr. C. Turner.

Single Dahlias: Acquisition, and Evening Star, both from Messrs. Keynes & Co.; Christine, Pantaloon, and White Star, all from Mr. T. S. Ware.—T. MOORE.

DWARF MORELLO CHERRIES.

THIS seems to be a most prolific form of fruit-tree for this part of the country; and indeed Morellos on all aspects, as we have them here, have been very prolific both last year and this. But what I wish to say a few words in favour of is, the dwarf mode of growing this fine useful fruit. A row of trees bordering one of our kitchen gardens here has been laden with fruit, and admired by every one who has seen it. They were, moreover, very beautiful at the flowering time, and branches of the trees were used freely for flower decoration.

I should say a quarter planted with these dwarf bushes, and attended to as to pruning, —not too severely—would prove a most profitable outlay. They should be planted from 8 ft. to 10 ft. apart all ways, and cropped between moderately for the first half-dozen years; and where sewage or other manure water can be got handy a dose of it, after the stoning period, would be found beneficial, as also would a mulching of rotten dung spread over the roots in winter and allowed to exhaust itself without being forked in. Owing to the flowers

opening later than those of the table kinds, and to the tendency of their slim shoots to bend to circumstances, storms and winds have not the same effect on them as on stiffer habited forms of fruit-trees.

Morellos are liked by many as a dessert fruit, especially when ripened in the sun, and not on a north wall, and certainly they are more wholesome than some of the so-called table kinds; and when in eating them the stones are swallowed with the pulp, as the French wisely do, they are still more wholesome.—H. KNIGHT, *Greenlands*.

HUMBOLDT NECTARINE.

OF this variety as an outdoor wall Nectarine I am very pleased to be able to send you a favourable account; and I am all the better pleased to do so because the season of 1882 has not by any means been a favourable one for either the setting, swelling, or maturing of outdoor fruits of any kind. During the spring of 1881 I planted a wall having a south-west aspect with small trees of Peaches and Nectarines of sundry varieties—one of which was the Humboldt Nectarine, now ripening 46 very nice fruits—a dish of which were gathered to-day, September 5th. For outdoor fruit they are of goodly size, very dark in colour towards the light, and of a deep yellow towards the wall. The flavour I have no doubt is as good as they look. I did not taste them, as I could only gather about as many as would make a dish to send away. Of this I shall have an account in due time. Suffice it therefore for the present for me to say on this point—which will relieve me of a great deal of responsibility—what we may accept, *cum grano salis*, as being substantially correct, namely, that the raiser of this very fine and promising Nectarine will have already said everything that could possibly be said in favour of its flavour. With him I might, as regards the matter of flavour, have joined issue, and risked the consequences, but being, unfortunately, a man of delicate conscience, I delay doing so until I can speak without hesitation.

My chief object now is to record my short experience of this tree, of its kindly growth, and of its fruiting out of doors during a year

which was anything but a propitious one. Its leaves are long, dark, and healthy, a state to which the leaves of all fruit-trees must be brought and maintained to enable them to produce good, clean, and well swelled fruit.

Of the other trees planted on the same wall, at the same time, I have nothing to say. Although they have not fruited, they have at any rate grown to my satisfaction. I shall, notwithstanding their shyness to fruit, refrain from "naming" any one of them until another year has passed, during which time they will have an opportunity of showing whether they merit the indulgence, the place, and the care that is now being bestowed on their cultivation. If they do, then "all's well that ends well."

—WM. MILLER, *Combe Abbey Gardens.*

VINES AND VINE CULTURE.

CHAP. XX.—POT CULTURE.

THE cultivation of Vines in pots does not seem to have been practised to any extent until about fifty or sixty years ago, as we read in *The Transactions of the Horticultural Society* of "Pot vines bearing fruit one year old" being exhibited in London in 1818, which were looked upon as wonderful. During the last twenty-five years, however, the cultivation of Vines in pots has been carried on to an extraordinary extent. In some gardens they are used for very early forcing to precede the permanent vines; and in others they are used to supply the place of vines that may be undergoing some change, &c.

The cultivation of the Grape Vine in pots has become therefore a very important section of vine culture, and requires special notice. The manufacture—if we might so term it—of "pot" vines in many of the leading nursery establishments is a very important matter. It would be interesting—were it possible of computation—to ascertain the numbers of young vines annually grown and disposed of, both as planting and fruiting vines. It amounts to many thousands; we hear of as many as 5,000 being produced annually at one establishment. What becomes of all this vast host it would be still more difficult to ascertain, but probably not a tenth part of the number ever become permanent vines. Suffice it thus far to illustrate the importance of the trade.

The growing of vines in pots is of a two-

fold character, two distinct purposes being in view: firstly, that of producing plants for planting out, subsequently to be grown as permanent vines; and secondly, that of producing plants for fruiting in pots.

Some first-class cultivators grow on the vines from eyes "struck" in early spring to their "fruiting state" the same season. Others strike the eyes the one season, and grow the plants on so far, and the following year cut down, repot, and grow on again, thus occupying two years in producing a similar result. The one-year old plants, if properly grown, are generally considered the better, but as they are only produced under very favourable conditions, and require an excessive amount of care and attention, they cost possibly more than the two-year old plants, or "cut-backs," as they are familiarly called. In nursery establishments those vines that may not arrive at the proper standard of fruiting strength may be utilised as "planters," but in private establishments the vine that is grown for fruiting, and is not sufficiently strong, is a useless incumbrance. Vines for fruiting in pots must be grown well or not at all. There is no plant that better repays proper attention, yet a very little neglect involves total failure.

As a rule the great bulk of young vines for all purposes is reared in nurseries, and sold for planting or fruiting, as the case may be. There is no actual difference in their cultivation in the nurseries from that followed in any other well-conducted garden, excepting that often a larger number has to be produced from a given space, and consequently must be grown closer together. The practice generally adopted is as follows:—

Production of Fruiting Vines in One Year.

1. *As to Propagation.*—Full instructions on this part of the subject are given at page 40 (1873), to which the reader is referred. We commence here with the "eye" rooted in a 60-sized pot.

2. *As to Potting, &c.*—Liberal pot room must be provided so as to grow the vines quickly. Therefore as soon as it is found that the roots have reached the bottom or sides of the pot, repot into a 5-inch or 48-sized pot, and from this—immediately the roots have again reached the bottom—into an 8-inch, and from this into

a 10-inch or 12-inch pot, which are called the fruiting pots. This size will be found quite large enough for all practical purposes. Plants that are intended to be grown on the second year need not be potted into larger than 5-inch or 8-inch pots. After the last shift, when the pots get well filled with roots, they should be liberally top-dressed from time to time, even raising this above the rim of the pot; this top-dressing will be found to get filled with fibry roots.

3. *As to Soil, &c.*—The best light fresh fibry loam that can be procured should be chosen for the first potting, with broken charcoal, and a little bone dust and rotted manure; the rougher the condition in which it is used the better. The pots should be carefully and efficiently drained. This is a very important matter. For the second and third pottings the soil may be somewhat richer and stronger. Pot vines cannot be grown in poor soil. Top-dressings should consist of one-half rotted manure mixed with the soil, and some horn shavings or bones. Care must be taken in potting to have the soil of the same temperature as the houses in which the plants are growing, and the vines should be potted in the same place if possible, so as to prevent any possibility of chill and consequent check to their growth, which is extremely injurious to them at this stage.

4. *As to Watering, &c.*—Abundance of water is at all times necessary for growing vines; they should never be allowed to become dry, and should be syringed overhead several times a-day, and the atmosphere kept continually charged with moisture. When the pots are fully charged with roots, liquid manure should be frequently applied.

5. *As to Temperature, Bottom Heat, &c.*—Vine eyes on being struck should be plunged in a bed having a bottom heat of 80°, and an atmospheric temperature, if by fire-heat, of 65° or 70°, or if by sun-heat, it may rise to 90° or 100°. Too much sun-heat, if the atmosphere is plentifully charged with moisture, can scarcely be secured. The same regulations as to temperature apply throughout the season, or until the vines begin to ripen. Bottom heat, *i.e.*, the plunging of the pots in a heated medium, is not requisite when the plants become larger. Some cultivators, however,

continue to maintain bottom heat in one form or other during the whole growing season.

6. *As to Training, Stopping, &c.*—As the young vines grow they require to be staked, and to have the tendrils, lateral shoots, &c., pinched off as they may appear. The leading shoot should not be stopped until it has grown to the required length. Some recommend stopping it when about 18 inches in length, about the time it is fairly rooted into the 8-inch pot, and training up, not the first, but the second lateral shoot or bud that is produced as the stem; this stopping is believed to concentrate more strength in the lower portion of the stem, but we have not found it of any practical utility. The young stem, although appearing slender when 18 inches or so in length, rapidly gets thicker and stronger if properly cared for. When the vines have arrived at their full length, from 6 to 8 or 10 feet as the case may be, this being generally regulated by the size of the pit or structure in which they may be grown, they must be stopped, and the laterals as they appear must be kept closely stopped also to the first leaf in exactly the same manner as recommended for permanent vines. When the canes are ripened off, which may be in November, they should be at once pruned, that is, all the lateral spurs should be cut off, and the stem cut down to the length required from 5 to 8 feet, according to its strength.

7. *As to Position or Situation, &c.*—The young vines whilst growing should be kept as close to the glass as possible, and as they increase in length a good situation for them is along the front of a low pit or house, training the rods to a trellis against the roof. In this manner the whole of the leaves, &c., are fully exposed to the sun's influence, and well-developed fruiting-buds are produced the entire length of the rod. This is why vines, well-grown "at home," are often superior to nursery plants, because in nurseries they are mostly grown in a vertical position, and being necessarily thickly placed, plump, well-developed buds are frequently only produced at the top of the canes.

8. *As to Ripening the Canes.*—The ordinary method is, towards the end of the season, when the vines are fully grown and show signs of ripening off, which they will do naturally, to give gradually more air and less water,

and after a short time to allow them to be fully exposed or removed to the open air. The plants, however, should never be allowed to flag or suffer for the want of water. This is a practice followed by some cultivators which is calculated to seriously injure the plants.

The Production of Fruiting Vines in Two or more Years.

The treatment required in regard to these is practically the same as that required for the one-year old vines, with this difference, that instead of "eyes" to be propagated, there are young plants to be dealt with. In winter these young vines should be cut down to one or two eyes or buds, and in January or February the pots should be placed in heat. As soon as the eyes have started, the plants should be repotted, the old soil being all shaken out and new soil applied. The smaller the pot that will contain the roots, the better. These should be plunged in bottom heat, and potted on, &c., as required, and as already directed. These "cut-back" vines, having somewhat the start of the "eyes," generally form the largest and strongest plants. They may be, and are sometimes, grown to a great size, and potted into the largest pots, when they produce enormous crops, some 25 or 30 bunches on a single plant, notable examples of which have been often exhibited by Messrs. Lane & Son, of Berkhamsted. Some of these large vines may be fruited in pots for several years.—A. F. BARRON.

NATIONAL CARNATION AND
PICOTEE SOCIETY.

IN continuation and completion of our report of the three exhibitions of this Society (pp. 129 to 134) we append the following notes on the novelties exhibited, which were in print, but of necessity withheld from want of space last month.

Thanks chiefly to the efforts of Mr. Dodwell, Mr. Simonite, Mr. Gorton, and Mr. Hewitt, great progress has been made in the development of the CARNATION during the last four or five years. In the premier class of SCARLET BIZARRES, Admiral Curzon (Easom) and Dreadnought (Daniels) were the only varieties which before that time could be depended upon to give flowers of the highest class, but now we

have varieties equal to either of them in quality, and possessing strong constitutions. For two seasons, seedlings of Mr. Dodwell's have gained the highest awards as the best flowers shown—*Fred* in 1881, and *Robert Lord* in 1882. These are grand Scarlet Bizarres. Other fine sorts of the same raiser are *James McIntosh*, extra fine, which disputed the premier prize with *Robert Lord*; *George*, *Arthur Medhurst*, *Edward Adams*, *Philip Thomas*, *Rayner Johnson*, and *John Hines*. This year Mr. Dodwell has another flower of the same class, named *Alfred Hudson*, which gained the 1st prize in its class as a seedling, and also the award of a 1st-class Certificate; it is a large, full flower, with the richly-coloured petals of Dreadnought, the guard petals broad and of fine form, the white pure, and the maroon and scarlet very rich. *Master Stanley*, raised and exhibited by Mr. Dodwell, received the 2nd prize; it is well-formed and full, with good petals, but lacks the rich colour of the other variety.

In the CRIMSON BIZARRE class, *W. M. Hewitt*, a fixed sport, from rose flake *James Merryweather*, was exhibited by Mr. Douglas. It has the good qualities of the rose flake, with the rich colour of Simonite's *J. D. Hewitt*, and received the 1st prize and the award of a 1st-class Certificate. Mr. Douglas was awarded the 2nd prize with *Mephistopheles* (Dodwell), a richly-coloured flower, which does not please the fancier, owing to the impurity of the white, but it will be very popular with the general public. Of flowers which having been brought into commerce could not contend for these seedling prizes, *Master Fred* (Hewitt), in this (the C.B.) class, was grandly shown both by Mr. Turner and Mr. Dodwell, and is undoubtedly the finest of the high-coloured varieties of this most beautiful section.

In PINK and PURPLE BIZARRES the 1st prize and 1st-class Certificate were awarded to *William Skirving* (Gorton), exhibited by Mr. Douglas; the blooms were of large size and grand quality, the pink and purple being evenly distributed, and the white good. Mr. Dodwell was awarded the 2nd prize for *Thos. Moore, Jun.*, a fine flower worthy of a high place; it is almost a crimson with rich purple, regularly disposed on broad, well-formed petals; the flower forms a high symmetrical crown.

In SCARLET FLAKES a good flower, exhibited both by Mr. Dodwell and Mr. Douglas but raised by the former, named *Henry Cannell*, was overlooked by the judges; it is a good variety, very distinct, with the best formed petals of any in this class, and will probably be certificated when it comes to be examined.

There were no seedling Purple Flakes, but in ROSE FLAKES *Tim Bobbin* (Gorton), exhibited by Mr. Dodwell, received the 1st prize and a 1st-class Certificate; it was also shown by the raiser, and by Mr. Douglas, and is a richly-coloured variety, with large flowers and well-rounded petals. *Mrs. Hewitt* (Dodwell), exhibited by Mr. Douglas, a paler-coloured flower of good quality, evidently a seedling from John Keet, gained the 2nd prize. *Rob Roy* (Gorton), exhibited by the raiser and Mr. Douglas, is also a first-class rose flake, that is bound to receive favourable notice at no distant date. *Jessica*, shown by Mr. Turner, which could not reappear in this competition as it won first seedling prize last year, is a lovely variety, large, full, finely-formed, and with a fine broad petal, the colour a soft rich rose on an exquisite white; it is certainly one of the best, if not the best of this rich class.

In PICOTEES also considerable progress has been made. Of ROSE-EDGES, *Mrs. Payne* (Fellowes), a recent novelty, and a splendid heavy-edged flower, obtained "premium," not without a severe scrutiny, the contest lying between it and Simonite's *Mrs. Gorton*.

Among the RED-EDGES, *Mrs. Gorton* is a grand new light red-edged novelty, which won for the exhibitor, Mr. Douglas, the 1st prize as a seedling; and also received the honour of a 1st-class Certificate. *Esther Minnie* (Dodwell), a very fine heavy rose-edge, a seedling from Fanny Helen, but a larger, brighter-coloured, and fuller flower, than which more cannot be said in its praise, won for Mr. Dodwell the 1st prize in its class, and also a 1st-class Certificate. The 2nd prize was awarded to Mr. J. P. Sharpe for *Miss Sharpe*, a very pretty flower which was not fully developed.

In the class for SCARLET-EDGES *Constance Heron*, a heavy-edged variety, shown so finely last year by Mr. Turner, and then awarded first seedling prize, was again brought forward in first-rate character, and is beyond doubt a fine addition to the scarlet class.

In PURPLE-EDGES *Muriel* (Hewitt) was in extra fine character, and promises undoubtedly to take the lead in the broad heavies.

Among FANCY OR BORDER CARNATIONS, *Mrs. Page*, exhibited by Mr. Duffield, received a 1st-class Certificate; it is of fine form, prettily fringed, and of a pleasing flesh colour. The same award was made to J. A. Wallington, Esq., for *Florence*, a really pretty flower, fringed, full, and of a colour which may be described as soft apricot or buff. *Mary Morris*, exhibited by Mr. H. G. Smith, of Drury Lane, was Commended by the judges; it is a well-formed flower, of a deep pink colour becoming paler at the edge, and is a very free bloomer.

At Oxford the Seedling prizes were not offered, these prizes being the result of a special fund raised for the South Kensington show, but most of the fine things already mentioned were again brought forward, whilst, in addition, Mr. Dodwell had two others, *Mrs. Barlow*, a lovely light P.P.B., of excellent form and high quality, and an extra fine rose flake; and *Miss Erskine Wemyss*, which we think will find a forward place in its class, rich as it is in variety.

At Manchester, Mr. Edward Adams, of Swalwell, Gateshead, had a fine S.B. in the way of Curzon, very promising. Mr. Gorton brought forward *Wm. Skirving* both as a C.B. and a P.P.B., and equally good in each. Mr. S. Barlow had a new C.B., very bright and attractive—so good indeed as for some time to be held in the balance for premier prize against the half-hundred Curzons or Dreadnoughts the northern growers put so freely and finely on the show table. Mr. Gorton also had *Tim Bobbin* and *Rob Roy*, rose flakes in splendid form; the latter almost too high in colour, occasioned no doubt by the unusual coolness and dampness of the atmosphere. Mr. Simonite had a very sweet flower in the same class, not unlike *Jessica* as exhibited; and Mr. Flowerday, another rose flake—*James Flowerday*, a variety having much of the character of John Keet.

In Picotees, Mr. Flowerday showed a very promising light-edged rose, *Miss Flowerday*, with a fine broad well-formed petal; unfortunately as shown, apparently from the exclusion of light, the colour on the edge was

paled almost to nothingness. Granting the correction of this fault, we should anticipate a high place for the variety. Mr. Simonite had two heavy-edged scarlets, both promising, and his *Mrs. Gorton*, light red-edged, the latter equal to the fine blooms shown by Mr. Douglas at South Kensington. Mr. Rudd had a fine seedling, heavy scarlet edge, *Mrs. Rudd*; and Mr. Sharpe won first prize in the class with his seedling *Miss Sharpe*.

Selfs and Fancies were shown in very fine order by Mr. Barlow and Mr. Gorton; and the single blooms were made far more attractive by being shown in the elegant glass bottles recently designed by Mr. Barlow (see page 115). The show, however, would have been more attractive had double the space of table-room been provided. This is a matter the executive will do well to arrange for in future years.—M.

SEA EAGLE PEACH.

THE Sea Eagle Peach is making for itself a reputation as being, perhaps, the best of all the late freestone varieties. Our figure published last year [plate 538] shows it to be a large and handsome fruit, but we have just received (Sept. 16) from Mr. Coleman, of Eastnor Castle Gardens, a sample which surpasses that which we have figured, both in regard to size and colouring. The fruit referred to measures fully $10\frac{1}{2}$ inches round, both vertically and horizontally, and weighs upwards of $9\frac{1}{4}$ oz. It is very handsomely mottled with light red over a considerable portion of the surface, the shaded parts being of a pale straw yellow. From a sample of the wood and foliage which accompanied the specimens, we ascertain that the leaves are serrated and furnished with small round glands. The quality of the fruit we are pleased to add is quite equal to its beauty, the flesh being melting and very juicy, and the flavour both rich and piquant.—T. MOORE.

NEW PICOTEES.

THE following notes on the new varieties of Picotee raised by the Rev. E. Fellowes may be acceptable to your readers:—

MRS. WEBB (Fellowes), a very large full flower, of fine form, good large smooth petals,

heavily edged with bright scarlet on a pure white ground; extra fine.

DOROTHY (Fellowes), a light edged rose; a large full flower, smooth and fine.

CONSTANCE HERON (Fellowes), a fine large full flower, with good broad smooth petals, heavily edged with bright scarlet; remarkably distinct; extra fine.

COXWELL (Fellowes), a dark heavy red edge; large, full and smooth; quite a distinct variety; fine.

MADAME CORBYN (Fellowes), a large full flower, heavily edged with bright rose; good broad smooth petals; the white very pure; extra fine.

MONARCH (Fellowes), flowers heavily edged with red, good smooth petals, and the white quite free from spot or bar; large and fine.

EVERLYN (Fellowes), a light edged rose, good broad smooth fine formed petals; large and moderately full; extra fine.—JOHN BALL, Slough.

APPLE WARNER'S KING.

[PLATE 572.]

THIS, which is *par excellence* the largest, or almost the largest, and handsomest of our kitchen Apples, has the following synonyms: King, Weavering Apple, and D. T. Fish. It is not at all a new variety, having been grown at Weavering, in Kent, for many years, as we are informed by Mr. Lewis M. Killick, but somehow or other it never attracted that notice or attention which its great merits deserved until some twenty years ago it appeared as a new variety under the name of Warner's King, the name under which it is now generally known, and has achieved great popularity, for its large size, its fine appearance, its free cropping quality, and its good keeping property, on all which points, except that of late keeping, it is justly entitled to be held in high repute. *Warner's King* is stated in the *Fruit Manual* to be in use from November to March, but it is rarely in good condition after Christmas. A few years ago it was sent out from Norwich with a great flourish, under the name of *D. T. Fish*, being named in compliment to our great gardener Mr. Fish, but it is somewhat unfortunate that so honourable a name should be even thus misapplied.



J. H. Martineau del.

Wm. Strong & Co. lith.

Apple Warner's King

The *Warner's King* Apple may be described as very large, broad or somewhat ovate in shape; skin of a pretty uniform clear yellow, with patches and small specks of russet throughout; stalk slender, short, deeply inserted in a regular cavity; eye small, closed, set in a deep, slightly angular basin; flesh white, tender, juicy, with a briskly acid flavour. It is an excellent cooking variety. The tree is a free grower, and generally a sure cropper; it is very much cultivated in the market gardens round London, and should be grown in every collection.—A. F. BARRON.

EDINBURGH INTERNATIONAL SHOW.

THE great International Fruit and Flower Show of the Royal Caledonian Horticultural Society, held in the Waverley Market Buildings on September 14 and 15, proved to be in every respect successful. A very liberal schedule of prizes, amounting to over £1,000, was offered, and the response was equally spirited, the number of entries exceeding 2,200—thus forming by far the largest and best exhibition of flowers and fruits ever held in Scotland.

The Market Buildings in which the show was held are specially well adapted for such a purpose, having a covered-in area of $1\frac{1}{2}$ acres, exceedingly well lighted, so that the objects are shown off to good advantage. A series of low, flat stages were arranged in long lines on which the exhibits were staged. No particular order or system seemed to be followed; thus, although the various exhibits were brought well under inspection, and the exhibition when examined in detail proved extremely satisfactory, the general effect was disappointing, the long straight tables presenting a very stiff and formal appearance. Had all the stages been swept away, excepting those for the Fruit and cut Flowers, and the plants been arranged in groups on the floor in a naturally artistic manner, after the example so well carried out in Belgium, the effect would have been far finer. With such a magnificent building, and the vast area at disposal, it is a pity that a little more attention was not directed to this end.

FRUIT proved—as is always the case at

these northern autumnal meetings—the chief feature of attraction in the show, the exhibition of *Grapes* being very extensive, something like 1,500 bunches being staged, and these for the most part of fairly good average quality. There was an absence of coarseness, which we have noticed as being prevalent on former occasions, but at the same time there was not present anything equal in quality to what we have previously seen. The staging did not seem to have been attended to with that care which is usually exercised, many fine examples losing their chance of prizes by the presence of decayed and small berries in the bunches which might easily have been removed.

The champion of the day was Mr. M'Indoe, gardener to Sir J. W. Pease, Bart., Hutton Hall, Guisborough, Yorkshire, who in addition to the chief prizes for Collection of Fruit, Collection of Grapes, and several others, obtained two out of the three Veitch Memorial Medals. Mr. M'Indoe deserves to be sincerely congratulated on his well-deserved success. The finest examples of Grapes were no doubt the Barbarossa or Gros Guillaume of Mr. M'Indoe, both large in berry and perfect in bunch. The third prize lot in the collection of Grapes, exhibited by Mr. Kirk, gardener to J. Thomson Paton, Esq., excited great admiration; the bunches were not large in size, but so very even and regular. Muscats were specially well shown, the bunches large and of beautiful colour; the 1st prize was awarded to Mr. James Day, gardener to H. T. Broadhurst, Esq., Garieston, to whom the third Veitch Memorial Medal was allotted. Golden Queen appeared in many collections, and of wonderfully good quality, so superior in fact to what we have been accustomed to see it, that many doubts were expressed as to its genuineness. Gros Maroc we were pleased to note appeared in good form; and Alnwick Seedling was in every instance particularly fine in colour and handsome, the best, however, coming from its introducer, Mr. W. P. Bell, of Alnwick. The examples of Madresfield Court were throughout particularly fine, those from Mr. Goodacre, Elvaston, specially so. We are glad to note that this fine Grape is now finding that favour in the North which it deserved. A few fine

examples of Golden Champion and Duke of Buccleuch were staged. Singular to state, the leading Grape, Black Hamburgh, appeared under the worst conditions, scarcely a good bunch of this variety being staged. Mr. Roberts, Charleville, Ireland, exhibited the largest bunch—a Barbarossa weighing over 20 lbs.; and six wonderful examples of Pot Vines from Messrs. Lane & Son of Berkhamsted—Black Hamburgs and Foster's White Seedling, each carrying about two dozen fine handsome bunches—excited the greatest admiration.

Pine Apples were very poorly represented. Some attention was directed to two fruits growing in a pot, the one a Smooth Cayenne, the other a Prickly, stated to have originated from one root. Some exceedingly fine *Peaches* were shown, the prizes being awarded to very excellent examples of Princess of Wales. *Apples* and other hardy fruits were not exhibited to any extent in competition, the fruit crop in the North having been almost a blank. The favourite Apples seemed to be Lord Suffield and Stirling Castle. To compensate for this, however, the large collection of 150 varieties exhibited by Messrs. Veitch & Sons of Chelsea, and by the Royal Horticultural Society from Chiswick, &c., more than made amends. These, from their correct nomenclature and fine appearance, proved extremely interesting to the visitors.

PLANTS, taking into consideration the lateness of the season, were fairly well represented, most of the leading nurserymen making special exhibits. Mr. B. S. Williams, of Holloway, represented the London trade by a very large assortment of New Plants, such as we are accustomed to see from this great establishment. A very interesting group of *Nepenthes*, *Sarracenias*, and other interesting plants of that nature, came from Mr. Sadler, of the Edinburgh Royal Botanic Gardens. Messrs. Ireland & Thomson were probably the largest exhibitors, and secured many prizes for a truly fine, well-grown, clean, and healthy lot of plants as were ever seen. Messrs. Dickson & Co. had a very large and well-arranged group of plants, as had Messrs. Methven & Sons. The Lawson Seed Co., and Messrs. Little & Ballantyne of Carlisle, also exhibited some very fine and interesting groups of Coniferæ, the

former being specially well arranged on the ground. Stove and Greenhouse plants were a splendid class—the collection of ten coming from Mr. E. H. Letts, gardener to Lord Zetland, Yorkshire, being perfect marvels of high cultivation; seldom have finer plants been seen at any exhibition. *Crotons* were unusually strong, the specimens large and remarkably well grown and coloured, the best examples coming from Mr. Scott, gardener to Lord Elphinstone, Carberry Towers, and Mr. G. Atkinson. *Dracænas* were likewise well shown and well grown. *Ferns* were a great feature, great numbers being staged, some of them remarkably fine specimens. The collection of six exotic species from Mr. Anderson, gardener to P. Neill Fraser, Esq., included an example of *Goniophlebium sub-auriculatum* hanging from the roof, with 200 fronds 8 to 12 feet in length, also *Lygodium scandens*, trained as a pyramid, from 6 to 8 feet high. Mr. Lyell, gardener to Sir A. Hope, exhibited some very fine masses of British Ferns. Smaller examples but fully more interesting, came from Mr. Anderson, Pilrig Model Nurseries. The *Orchids* were wonderfully well shown for the time of year; a single specimen plant of *Renanthera coccinea*, from Mr. D. Paton, gardener to Mrs. Tait, Galston, was perhaps the finest plant of the kind ever seen, having three growths from 4 to 5 feet high, and bearing four spikes of its beautiful red flowers. *Table plants* were well shown, and in considerable numbers. *New plants* were, on the contrary, somewhat scarce, nothing very special attracting our attention. Messrs. Dickson & Co. had some new and distinct forms of *Coleuses*. Messrs. Robertson exhibited a new *Begonia* from India, with palmate leaves, prettily spotted, named *Begonia Listeri*, after the collector, Mr. Lister, which may prove valuable. *Vallotas* were specially well shown; and two plants of *Fuchsia procumbens*, trained as small standards, were extremely pretty.

Cut Flowers were shown in large quantities. Gladioli and Roses from Messrs. Dickson, Newtownards, Belfast, were especially good. Yellow and striped Marigolds, from Messrs. Dobbie & Son, of Paisley, were remarkably fine, and attracted much attention. Dahlias and Hollyhocks were well shown, the single varieties excepted.

The show of *Vegetables* was very extensive and remarkably good; these being displayed under the galleries were somewhat in the dark. Potatoes were not so good as we expected to see them. Leeks were very largely shown, and extremely fine in appearance; likewise Celery, and Yellow Turnips—which latter are seldom met with in the South, although often of finer quality than the white sorts. Mr. Muir, Margam Park, South Wales, secured the premier prize.—A. B.

REGISTER OF NOVELTIES.

NEW PLANTS.

ECHEMA PANICULIGERA, *Grisebach*.—A handsome and attractive Bromeliad, having ligulate leaves abruptly enlarged at the base and shortly acuminate at the apex, and producing a reddish-purple flower scape several feet high, supporting a large compound panicle of numerous rose-coloured flowers the petals of which project beyond the sepals and are of a deep bright purple; the rachides and bracts are all rose-coloured. West Indies.—W. Bull.

CHIRILANTHES CALIFORNICA, *Mettenius*.—This is the *Hypolepis californica*, Hooker. It is quite a gem amongst small growing evergreen greenhouse Ferns. The fronds are densely tufted, 6—8 inches high, the stipes brown and glossy, and the lamina deltoid, measuring about 3 inches in each direction, quadripinnatifid, the lower pinnae deltoid, with the segments small and pointed, and bearing from two to six sori placed in the sinuses of the segments. A good plain figure is published in the *Species Filicum* (ii., t. 88a), and a nice coloured figure in *Eaton's Ferns of North America* (i., t. 6). California.—F. W. & H. Stansfield.

CROSSANDRA INFUNDIBILIFORMIS.—A rather showy Acanthaceous stove shrub, with stalked ovate-acuminate leaves much narrowed to the base, and axillary tetragonous spikes of rather large reddish-orange flowers, which are remarkable in form being one-lipped and five-lobed. Natives of the East Indies, and introduced many years ago, but apparently lost till re-introduced.—W. Bull.

IMPATIENS SULTANI, *Hook. f. (Bot. Mag., t. 6643; Garden, pl. 342)*.—A very striking dwarf-growing Balsam from Tropical Africa, with stout succulent stems, ovate-lanceolate acuminate crenate serrate leaves, having long petioles, and axillary long-spurred flowers an inch and a-half in diameter, produced singly or in twos or threes, the petals flat, carmine scarlet, the dorsal one roundish-obovate retuse, the lateral ones cleft to the base into two obovate-cuneate lobes, giving the appearance of a five-petalled flower. Zanzibar.—Kew.

LILIUM SPECIOSUM MELPOMENE, *Hovey*.—A remarkably grand form, having the characteristics of the true type form as to colouring, but much exceeding it in the size of the flowers and the breadth of the leaves. The flowers, which measure about 8 inches across, have a rich bright crimson ground colour and white margins to the perianth segments, which are richly spotted; 1st-class Certificate R.H.S., Aug. 22. A variety raised by Mr. C. M. Hovey, of Boston, U.S., and exhibited for him by Mr. G. F. Wilson.

RANUNCULUS ANEMONOIDES, *Zahlbr.*—A charming little Alpine perennial, with glaucous green deeply divided biternate leaves, having the segments tripartite-multifid, with linear divisions, and bearing rather large and attractive flowers (1—1½ inches

across) which are white tinted with pink, and pale rose externally, borne on stems from 3 inches to 6 inches high. This charming little peat-earth plant, whose leaves reach their full development somewhat later than the flowers, and which was figured in the *Garden* (pl. 354), and described in Messrs. Backhouse & Son's Catalogue for 1881, is a native of the Styrian Alps.—J. Backhouse & Son.

VANDA HOOKERIANA, *Rehb. f. in Bonplandia*.—One of the finest of the Vandas, and closely related to *V. teres*, of which it has the habit, while the flowers somewhat resemble those of the tricolor set. The stems are terete elongate and rooting, the leaves terete, erect, 2—3 inches long, channelled above, the flowers in racemes opposite the leaves; these are large and very handsome, the sepals cuneate-ovate obtuse wavy, white, the upper one projected forwards, tinted with rose; the petals are larger and broader (2 inches across), and stand right and left at the upper part of the flower; the lip is furnished with a pair of basal triangular auricles, which are very rich deep purple, the front portion rather concave, very broad, three-lobed, the lateral ones obtusely oblong, the middle one short ovate, all of them white, elegantly marked with purple dots ranged in lines, so as to appear striately veined, deeper purple at the base. *Rehb.* says of it, "*Planta admirabilis inexpectatissima*." Native of Borneo.—Mr. Hill, gardener to Sir N. M. de Rothschild, Tring.

NEW FLOWERS.

BEGONIA (Tuberous).—*The Premier*, rosy-pink fine double flowers; 1st-class Certificate Scottish Hort. Association, Sept. 5.—T. Methven & Sons.

CARNATIONS.—The following are to be sent out during the present autumn:—*Alfred Hudson*, S.B., a superb variety, large and full without confusion, smooth and grandly marked with the rich colours of Fred on a pure white ground; one of the best S.B.'s Mr. Dodwell has raised. *A. D. Southgate*, C.B., a seedling from Thomas Moore, but with a larger number of petals and stronger crimson than its parent; distinct and fine. *Caractacus*, S.B., a seedling from Dreadnought, very regularly and distinctly marked with rich scarlet and dark maroon; sometimes extra fine. *Dandy*, S.B., a finely-formed light S.B. of good quality, very effective on the home stage; a good grower. *Harry Matthews*, S.F., a seedling from Sportsman, but with a much broader petal, and also a darker scarlet; a most striking variety. *Madge Wildfire*, R.F., a seedling from Curzon, very striking and effective on the home stage; a broad petalled finely-formed variety, well marked with rich strongly defined rose. *Marguerite*, C.B., a flower of the Milton type, but with lighter colours and broader petals; a good grower. *Master Stanley*, S.B., a flower of grand quality and medium size, brilliantly marked with rich colours on a ground of the purest white; refined in a high degree, smooth, and of the finest form. *Mayor of Oxford*, P.F., a seedling from Mayor of Nottingham, of a lighter colour and more refined character; full sized and well formed; a good grower. *Millie*, C.B., light in colour, but of fine form and substance, and great breadth of petal, very distinctly marked; quality extra. *Miss Erskine Wemyss*, R.F., a beautiful flower in a class rich in variety; large, smooth, of great substance and high quality, and very distinct; it is richly marked with a lovely soft rose. *Miss Henderson*, P.P.B., a grand light variety, with the delicate colours and distinct markings of Sarah Payne on a ground of equal purity; size large; will be seen best when allowed to carry four or five blooms, removing the leading bud before opening. *Mrs. Barlow*, P.P.B., a delicate P.P.B. of the finest possible form and beautifully marked; habit excellent; substance and quality first-rate. *Samuel Brown*,

s.f., a sport from Admiral Curzon of great excellence; like Sportsman, of a similar origin, it is bright and fine in a high degree. *Scarlet Keet*, s.f., a seedling from John Keet, r.f., which it follows closely in habit, shape, and constancy, the colour only varying. *Smike*, s.b., a fancy s.b., of grand properties, the colours rich and well distributed, smooth, and of fine form; it would be one of the finest s.b.'s but for a pouncey white, which, nevertheless, for the home stage and general purposes adds to its effect. *Tom Brown*, s.b., a medium sized flower of the Curzon type, very richly marked with brilliant colours on a good white; smooth and of fine form. *Tom Foster*, p.p.b., a dark thin flower, but with grandly marked petals of fine form and substance. *Tom Power*, s.b., a seedling from Sportsman, s.f., large, fine in form, smooth, and boldly marked with rich scarlet on dark maroon; an early bloomer. *T. S. Ware*, p.p.b., a seedling from Thomas Moore, but fuller and lighter in colour than the parent; an extra fine variety.—The foregoing are all seedlings raised by Mr. E. S. Dodwell.

Amongst Decorative Carnations we have *Mary Morris*, a very pleasing pale rose-pink self, paler at the edges, but remarkable for its vigorous growth and free-flowering properties; 1st-class Certificate R.H.S., Aug. 22.—H. G. Smyth.

DAHLIAS (Show).—*Beauty of the Grove*, a very striking variety for garden decoration, but somewhat deficient in show properties; the colour is lilac at the base, flushed at the edge with purplish-lake. Commended for its colour, Nat. Dahlia Soc., Sept. 8.—G. St. Pierre Harris. *Condor*, a fine show flower, of grand build, large symmetrical and high centred, the colour a distinct and striking shade of pale reddish buff; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—Keynes & Co. *Earl of Ravensworth*, a large show flower of a remarkable colour, a very pale rosy-buff or fawn; it is said to be a sport from Vice-President; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—Harkness & Sons. *Hope*, a large and attractive show flower, of correct form, and of a highly pleasing shade of soft bright lilac-rose colour; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—Keynes & Co. *James Gilbert*, a fine show crimson variety, with a dark maroon centre.—Rawlings Bros. *John Henshaw*, a beautifully formed globular show flower, of about medium size as shown, with a perfect centre, the colour an intense purplish claret; 1st-class Certificate R.H.S., Sept. 12.—Rawlings Bros. *Senator*, a splendid solid show flower of remarkable excellence, being of great depth and superbly finished, the colour rich purple suffused with magenta rose; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—Keynes & Co. *Sir B. Seymour*, a promising show flower of a deep maroon.—Rawlings Bros.

Of new Pompon Dahlias we have:—*Favourite*, a very fine shaded crimson, of perfect symmetry; 1st-class Certificate Nat. Dahlia Soc., Sept. 8. *Gem*, a dwarf growing and superb variety; free blooming, and a perfect gem, the blooms faultless in form, and closely symmetrical, of the richest crimson-scarlet; 1st-class Certificate Nat. Dahlia Soc., Sept. 8. *Isabel*, a pale scarlet of exquisite neatness and symmetry; 1st-class certificate Nat. Dahlia Soc., Sept. 8. *Little Duchess*, a charming variety, with small neat globular blooms tipped with shaded crimson; 1st-class Certificate Nat. Dahlia Soc., Sept. 8. *Mabel*, a variety with neat symmetrical blooms of a pleasing pale lilac colour; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—All free and dwarf in habit, and all from C. Turner.

Some of the best New Single Dahlias which have been exhibited are:—*Acquisition*, a very handsome and distinct variety, the colour crimson with a marginal band of orange red which has a very pleasing effect; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.

—Keynes & Co. *Christine*, a large-flowered variety of good shape, rather concave, the colour a charmingly delicate clear roe-pink, something like that of Christine Pelargonium, quite novel in character; 1st-class Certificate Nat. Dahlia Soc., Sept. 8; R.H.S., Sept. 12.—T. S. Ware. *Evening Star*, large and well formed, slightly recurved, velvety maroon crimson; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—Keynes & Co. *Pantaloon*, remarkably distinct and attractive, the blooms rather small, maroon-crimson tipped and flamed with a bar of blush white; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—T. S. Ware. *Ruby King*, a finely-shaped large flower of a very bright ruby shaded with rose, clear and distinct; 1st-class Certificate R.H.S., Sept. 12.—Hooper & Co. *White Star*, a neat slightly reflexed flower of moderate size, well formed, and remarkably pleasing in style, so far as the cut flowers were concerned; opening pure white, becoming tinged with pink; 1st-class Certificate Nat. Dahlia Soc., Sept. 8.—T. S. Ware.

PANSIES (fancy):—*Archibald Bowe*, creamy white ground with dark maroon blotch; 1st-class Certificate Scottish Hort. Association, Sept. 5. *David Aitkin*, yellow ground, with very dark blotch; Commendation, Scottish Hort. Association, Sept. 5. Both from Mr. G. C. Murray, Carnwath.

PICOTEES.—*Florence Agnes*, H.P., a very distinct heavily marked flower, of fine quality. *Olive Mary*, H.P., a seedling from John Delaforee, but a great improvement upon that variety; broad edged and heavily-marked with a pure white ground.—Both from E. S. Dodwell.

ROSE, *Queen of Queens*, a strikingly effective and attractive H.P. rose, which has kept up its character well throughout the season; it is full and globular in form, pale pink tinted with rose, and having a delicate satiny lustre. The flower is remarkable for its freshness of colour at so late a period, and no doubt deserves higher appreciation than it has yet received.—W. Paul & Son.

NEW FRUITS.

APPLE, *Wilhelm von Elsner* (*Gartenzeitung*, i., 145, with coloured plate), a handsome apple of the Calville type. The fruit is large, conical, ribbed, with a small closed calyx and deep conical calyx-tube; skin smooth, greenish yellow, subsequently lemon-coloured, washed on the sunny side with light vermilion red; flesh whitish-yellow, tender, juicy, aromatic, slightly strawberry-like in flavour. It is in use from the end of November till March. The tree forms a flattened globular head and bears abundantly, not being specially sensitive to frosts. It was raised from seed by Herr Martin Elsner of Gronow by Kalinowitz, and was by him named after his father.

PEAR, *Dijzeling* (*Bulletin d'Arbor.*, 1882, 193, with plate).—A handsome looking Pear, somewhat resembling the Styrian. It appears to have been known in Dijzeling's orchard from time immemorial, but 30 years since the original tree was almost destroyed by lightning. M. J. B. Heirbrant, of Lovendegem, about 16 years ago secured some grafts of the variety, which he called the Dijzeling. The tree is of pyramidal habit, of extraordinary fertility, and thoroughly hardy. The fruit is of middle size, and at first is green spotted with brown, becoming pale yellow strongly flushed on one side with red; stalk thick, woody, inserted obliquely into the tapered base of the fruit. The flesh is white, sweetish, and when fully ripe very melting, the ripening taking place early in August. It appears to be a good early market pear possessing much refinement of quality.

STRAWBERRY, *Forman's Excelsior* (*Journ. Hort.*, 3 ser., v. 52, fig. 10, 11).—An early variety the

merits of which seem to be fairly established; it is as large and as handsome as President, with a richer and more sprightly flavour; fruit large, evenly conical or broadly cockscomb-shaped, dark red, the surface deeply pitted, with moderate-sized seeds; flesh firm, tinged with pale scarlet throughout, solid, juicy, with a brisk flavour and fine aroma. Raised by Mr. Forman, of Louth, from the variety named James Veitch; 1st prize at Nottingham in 1875.

STRAWBERRY, *President V. Meurein*.—This variety belongs to the Alpine section, surpassing in size and fertility all that have hitherto appeared. The fruit is deep red, roundish-conical, as large as the Pine Strawberry, with a firm flesh and an exquisite flavour. It is moreover very productive. Raised by M. Aramburu, of Lille, and awarded a 1st-class Certificate by the French *Société Régionale d'Horticulture du Nord*. Sent out by M. Mulie, of Neuville-en-Ferrain.

NEW VEGETABLES.

POTATO, *Alderman de Keyser*, a very early pale pink kidney, very handsome, a great cropper, and of excellent quality; 1st-class Certificate International Potato Show, Sept. 13, 1882.—R. Fenn.

POTATO, *James Abbiss*, a handsome flattish round white variety, early, of medium growth, a great cropper, fine quality; 1st-class Certificate International Potato Show, Sept. 13, 1882.—R. Fenn.

POTATO, *Recorder*, a very fine and handsome white kidney, short top, early, a great cropper, and having very fine table quality; 1st-class Certificate International Potato Show, Sept. 13, 1882.—R. Dean.

POTATO, *Sir Walter Raleigh*, a very good cooking flattish round white variety; haulm about 3 feet; excellent flavour and a great cropper; 1st-class Certificate International Potato Show, Sept. 13, 1882.—C. Ross.

NEW PUBLICATIONS.

The GARDENERS' CHRONICLE (Aug. 26—Sept. 16) describes the following novelties:—*Fuchsia triphylla*, Lin. (p. 263), a West Indian species, long since described, but not till now introduced; an ornamental shrub, of dwarf and neat bushy habit, with medium sized ovate leaves, and terminal nodding racemes of glowing cinnabar-red flowers, in which the petals are shorter than the sepals and the stamens are included.—E. G. Henderson & Son. *Crassula monticola*, N. E. Brown (p. 264), a dwarf-branched shrubby species, with opposite connate ovate acute leaves, and terminal corymbose cymes of pinkish white flowers; South Africa.—Cambridge Bot. Garden. *Kämpferia vittata*, N. E. Brown (p. 264), a Sumatran stove perennial, with oblique elliptic obtuse apiculate leaves, dark green prettily marked with a feathery grey stripe along the centre, and curious white flowers, the middle lobe having a central band of yellow.—Veitch & Sons. *Anthurium longipes*, N. E. Brown (p. 297), a stove Arad, with creeping stems, erect narrow oblong leaves on very long slender petioles, and light green reflexed lanceolate spathes, nearly 4 inches long; Bahia.—Kew. *Schismatoglottis Lavalleyi purpurea*, N. E. Brown (p. 298), and *S. L. immaculata* (p. 298), two varieties of a pretty variegated Arad, the first from Sumatra with the grey-blotched leaves purple beneath, the second from Java with the unspotted leaves purple beneath.—Veitch & Sons, and Compagnie Continentale d'Horticulture. *Arum elongatum*, Steven (p. 298), a Crimean tuberous perennial, with elongate sagittate hastate leaves, and a 6—9 inch elongate lanceolate acuminate spathe blackish-purple inside the limb. *Hoya lasiantha*, Korthals (p. 333, fig. 57), a Bornean climber, first introduced some 25 years ago, and having opposite smooth ovate elliptic leaves, and drooping umbels of orange-yellow flowers of which the basal half is densely clothed with soft white

hairs, the projecting corona being ochreous yellow; also called *Plocostemma lasianthum*.—Veitch & Sons. *Aglaonema Hookerianum*, Schott (p. 333), a North-east Indian Arad, with dark green elliptic-ovate leaves, and green boat-shaped spathes.—Kew. *Dendrobium Dearei*, Rehb. f. (p. 361), a fine new Eastern Dendrobe, with stems 1—2 ft. high, oblong-ligulate leaves scarcely 2 inches long, and a raceme of 8—18 large white flowers having a yellow spot on the disk, and resembling those of *D. infundibulum* and *D. Jamesianum*.

The BOTANICAL MAGAZINE (Sept.) figures the following:—*Impatiens Sultani*, Hook. f. [t. 6643], the pretty scarlet-flowered balsam from Zanzibar.—Kew. *Bacularia monostachya*, F. Muell. [t. 6644], a small-growing palm (4—12 ft.) with slender ringed stems, and a band of numerous recurved pinnatisect leaves 2—4 ft. long, having ligulate plaited truncate segments, and slender drooping spadices bearing the unattractive flowers; it is an Australian plant and is called the Walking-stick Palm; and also *Areca monostachya*, and *Kentia monostachya*.—Kew. *Pæonia Wittmanniana*, Steven [t. 6645], a pale yellow-flowered Pæony from the Caucasus and Armenia, introduced in 1842, but still scarce; 2—3 ft. high; flowers 4 inches in diameter. *Berberis Thunbergii* D.C. [t. 6646], a small twiggy Japanese Berberry, with reddish brown branches armed with simple spines, small obovate or spatulate leaves in tufts along the branches, and numerous small drooping flowers, which are straw-coloured suffused with red, more red than yellow.—Kew. *Bredia hirsuta*, Blume [t. 6647], a small shrub 2—3 feet high, with ovate 5—7 nerved leaves, and lax panicle cymes of small rosy flowers; from Japan. *Catasetum callosum*, Lindl. [t. 6648], a Venezuelan epiphyte, with curious long narrow brown flowers.

The GARDEN (Aug. 26—Sept. 16) contains coloured figures of—*Spathoglottis Lobblii* [pl. 341, fig. 1], a Bletia-like terrestrial Orchid, with pretty yellow flowers having the lower sepals streaked with red.—India. *Ipsæa speciosa* [pl. 341, fig. 2], a Ceylon terrestrial Orchid, with an erect stem 1½—2 feet high, bearing 2—3 large golden yellow flowers. *Impatiens Sultani*, Hook. f. [pl. 352], a bright-looking Balsam from Tropical Africa, of dwarf habit, with fine carmine-red flowers.—Kew. *Hypocalymna robustum* [pl. 353], a pretty myrtaceous New Holland shrub, of gracefully twiggy growth, with linear leaves, in the axils of which are clustered the pretty five-petalled peach-coloured flowers. *Ranunculus anemonoides* [pl. 354], a neat-looking dwarf Alpine, with biterminal multifid leaves, and many-petalled flowers, which are white on the inner and purplish on the outer surface.

L'ILLUSTRATION HORTICOLE (7—8 liv.) contains figures of *Aërides Houletianum*, Rehb. f. [t. 455], a very beautiful epiphyte from Cochinchina, with the habit and foliage of *A. virens*, and a dense many-flowered raceme of large fleshy flowers, the sepals and petals buff yellow, the lip trifid with the bifid anterior lobe trowel-shaped, white tipped with rosy purple; this has been noted as *A. Ellisii*, and as *A. Mendelii* in some gardens.—M. Lüddemann, Sir Trevor Lawrence, and M. Linden. *Anthurium Lindenianum*, C. Koch et Augustin [t. 456], a very handsome but little known species, from New Grenada, with long stalked spreading cordate bright green leaves, and large oblong erect spathes which open whitish and afterwards become tinted with rose-colour, the cylindrical spadix being at first reddish, changing to brown.—M. Linden. *Aphelandra Chamissoniana* [t. 457, as *punctata*], a pretty stove Acanthad, with the green leaves white passing off into dots along the course of the ribs; the spike has reflexed yellow bracts and flowers of a more brilliant yellow. *Alsophila contaminans*, Wall. [t. 458], a fine tree fern known also

as *A. glauca*; it has a tall naked stem, aculeolate stipes, and bipinnate coriaceous fronds. — Compagnie Cont. d'Hort. *Encephalartos cycadifolius Frederici Guilielmi*, Rod. [t. 459], a stout-stemmed Cycad, with erect pinnate leaves, the leaflets of which are linear plane 7—9 nerved, and lanuginose, the apex of the trunk being densely tomentose. — South Africa. *Nepenthes Henryana* and *N. Lawrenceana*, Hort. Aug. [t. 460], two fine hybrid pitcher plants, of which many forms have recently appeared; both these have the pitchers handsomely marbled with brownish red, but those of the former are more elongated than those of the latter.

GARTENFLORA (July—Aug.) figures *Dendrobium litiiflorum Freemanni*, Rehb. f. [t. 1086], named Farneri on plate, a very pretty form with pale rosy sepals and petals and a white dark-eyed lip, the eye surrounded by a yellowish white zone. *Gentiana decumbens*, L. [t. 1087, fig. 1—3], a handsome dwarf hardy perennial from Eastern Turkestan, with a rosulate tuft of elongate-lanceolate leaves, and congested heads of rich blue flowers; it was grown by Loddiges in 1804. *Gentiana Kesselringi*, Regel [t. 1087, fig. 4, 5], a glabrous perennial with a radical tuft of linear-lanceolate leaves, and white flowers in close racemed heads terminating the eight-inch stems; also from Turkestan. *Eucalyptus globulus*, Labill. [t. 1088], a portrait of a full grown tree reproduced from the *Gardeners' Chronicle*. *Agave Goeppertiana*, Regel (p. 211, with woodcut), a Mexican caulescent species, with broadly lanceolate leaves 2 ft. long, attenuated into a short conical chestnut-coloured spiny point with minute crowded deltoid marginal teeth; the flower stem grows 5—6 ft. high, and terminates in a dense elongate close-set spike of flowers; comes near *A. densiflora*. — Botanic Garden, Breslau. *Allium Ostrowskianum*, Regel. [t. 1089], a rather pretty Turkestan garlic, with subglobose bulbs, 2—3 linear oblong flaccid leaves, and flower-stems 8—12 inches high, bearing an umbel of pretty but scarcely showy rosy-coloured flowers. — St. Petersburg Botanic Garden. *Hieraceum villosum*, Lin. [t. 1090], a yellow-flowered hardy perennial Composite. *Musa Ensete*, Gmel. [t. 1091], an Abyssinian plant now well known, and often employed for summer decoration in subtropical gardens.

REVUE DE L'HORTICULTURE BELGE ET ETRANGÈRE (Aug.—Sept.) has a beautiful figure of *Dracena Massangeana*, which has severally borne the names of *Aletris fragrans* Wachacaua, and *Aletris fragrans foliis medio-pictis*. The plant has the leaves elegantly striped with yellow down the centre and margined with deep green. — M. Jacob-Makoy. The same number contains a portrait of Dr. Masters, F.R.S. *Le Progress Coleus*, an elegant variety, in which red, white, and yellow tints prevail, with or without a green foundation.

LA BELGIQUE HORTICOLE (March—May) contains the following coloured illustrations:—*Masdevallia rosea*, Lindl. [t. 3], a charming species found by Hartweg in 1843, in Ecuador, and having somewhat the aspect of *M. ignea*, except that the flowers are of a lively rose colour; it is one of the hardiest of the species. — M. Ferd. Massange. *Quesnelia rufa*, Gaud. [tt. 4, 5, 6], the *Quesnelia rosea* and *Billbergia Quesneliana* Ad. Brongn., a very handsome Bromeliad from Guiana and Brazil, of caulescent habit, with long narrow taper-pointed serrated leaves, and a compact strobiliiform inflorescence issuing from lanceolate acuminate whitish-brown spathes, the flowers deep blue emerging from ovate rosy red bracts which have white margins. — Liège Botanic Gardens—where the flowering plant represented in t. 6 is between 8 and 9 feet high. The number contains a translation of Mr. Fawkes' *Horticultural Buildings*, with 44 woodcut illustrations.

JOURNAL DES ROSES (Aug.—Sept.) figures the *Moss*

Rose Deuil de Paul Fontaine, raised by M. Fontaine, of Clamart, near Paris, and introduced to commerce in 1873; it is a vigorous rose, with stout foliage and very mossy prickly stems, the flowers full and cup-shaped, and of a deep shaded crimson. *Tea Rose Emélie Dupuy*, a fine pale yellow variety deeper in the centre, raised from Madame Falcot fertilised by Gloire de Dijon, in 1869, by M. Levet, of Lyons.

BULLETIN D'ARBORICULTURE, &c. (July) figures the *Pear Dijzeling*, a handsome looking fruit, for notes on which see page 156.

REVUE HORTICOLE (Aug. 1—Sept. 16) has coloured figures of *Apple "Double bon Pommier,"* and the *Grape Raisin Turc* (Henab Turki), an Egyptian Vine which we shall notice later on. *Eupatorium grandiflorum*, an ornamental Composite, with cordate serrated leaves, and large corymbose heads of rosy pink flowers, becoming paler after expansion; it is a hardy perennial of some merit. *Pear Madame Caroline d'Airoles*, a bluntly oval fruit, raised in 1850, of a greenish brown colour.

GARTEN-ZEITUNG (Aug.—Sept.) figures a nice-looking *Apple* of the Calville type, named *Wilhelm von Elsner*, obtained by Herr Martin Elsner, of Gronow, near Kalinowitz, and named after his father. The September number gives two plates in illustration of Dr. Paul Sorauer's remarks on the injury caused by Frost to the branches of fruit-trees.

GARDEN GOSSIP.

— THE Horticultural event of the year has been the GREAT INTERNATIONAL FRUIT AND FLOWER SHOW, which took place on September 13 and 14, in the Waverley Market at Edinburgh, a covered area of about 1½ acres, well glazed and lighted, and convenient of access. The Royal Caledonian Horticultural Society, under whose auspices this great exhibition has been held, deserves the gratitude of gardeners for its spirited policy. The schedule of prizes was a liberal one, amounting to over £1,000. We understand that the response was of a corresponding nature, there having been no less than 2,200 entries, and the exhibits occupying the whole of the large available space. Edinburgh is specially well provided with a building for the holding of such large displays, the new Waverley Market in Princes Street being superior to anything of the sort we have in England. Grapes, which in the North always form a special feature, were represented by about 1,500 bunches, and were of fair average merit. The champion of the day in the fruit classes was unquestionably Mr. McIndoe, gardener to Sir J. Pease, Bart., Hutton Hall, Yorkshire, who not only was awarded two of the Veitch Memorial Medals for his beautiful examples of Gros Guillaume Grapes and his collection of twelve varieties of fruit, but also gained numerous first prizes (see also p. 153).

— AMONGST the notable events of the past month may be mentioned the GRAND NATIONAL DAHLIA SHOW at the Crystal Palace on September 8 and 9; and the INTERNATIONAL POTATO EXHIBITION on September 20 and 21. The entries for the former show, which is more fully noticed at p. 145, included 9 stands of 48 blooms, 28 stands of 24 blooms, 38 stands of 12 blooms, and 14 stands of 6 blooms, besides a fine display of Pompons and Singles.

— THE TRIAL POTATOS at Chiswick were examined by a Committee on September 5, with the result that the following varieties

proved to be handsome, and possessed of good cropping qualities:—*Clarke's No. 2*, a long white kidney of the *Magnum Bonum* type; *Sir Walter Raleigh*, white round; *Fenn's No. 6*, pink kidney; *Richter's Imperator*, white kidney; *Stewart's Seedling*, white kidney; *New Early Premier*, white round; *Lord Rosebery*, red round; *Kerr's Seedling No. 1*, red-flaked kidney; *Carter's Eight Weeks*, white round; *Brand's No. 4, 39, and 31*, white rounds; *Brownell's No. 8*, white round; *Recorder*, white, long kidney. When cooked the following varieties proved of excellent quality, and were awarded 1st-class Certificates, viz., *Richter's Imperator*, a long white kidney, received from the Lawson Nursery and Seed Co., Edinburgh; *Clarke's No. 2*, a long white kidney of the *Magnum Bonum* type; and *Rand's No. 39½*, a long kidney of the *Snowflake* type, received from Messrs. Bliss, Boston. *Sutton's Pricetaker*, certificated last year, proved again to be of splendid quality.

— MR. A. O. WALKER sends to the *Gardeners' Chronicle* flowers of the *GAZANIOPSIS STENOPHYLLA*, a comparatively unknown hardy perennial of much beauty. It is a Composite, with long, linear, grassy, deep green leaves, snowy-white on the under-surface, and long leafless flower-stalks bearing heads of flowers 3 inches across, brilliant in colour and curious in detail. The numerous involucre bracts are all run together at the base into a cup, the free ends being leafy, about an inch long, linear and ciliate at the edges; these enclose a circle of ray florets, bronzy green in the centre externally, of the richest golden-yellow internally; the disc florets are similar in colour. The flowers have the habit of closing in the after part of the day.

— THE NEW *CANNA NOUTONI* is considered by Messrs. Hooper & Co. as at least the equal of the noble *C. Ehemanni*. The new sort is, however, in the same way as the older one, but different, the flowers growing more erect, and the colour being finer—a splendid crimson scarlet. The cut flowers bear out this high character, and if the habit be equally good, these will form a fine pair of ornamental Cannas, infinitely superior to those of the ordinary races.

— THE TEA ROSE *GIGANTESQUE* is one of the finest and freest of Tea Roses for indoor culture, in situations where it can run freely, such as the back wall of a conservatory. At the present day it seems to be little known, but it is a French variety raised by M. Odier, and sent out in 1845. When allowed sufficient scope its flowers are abundant, and exceeding well adapted for cutting purposes. The blossoms are of a deep rose-pink, becoming paler towards the edge, the petals being broad, and making up a bold, fine-looking flower. We have several times noticed it growing at Trentham, where it is thought very highly of by Mr. Stevens, on account of the bountiful supply of cut blooms which it furnishes. The plant is growing against the back wall of an old lean-to house, where we imagine it gets little feeding, but is allowed to run freely without much, if any, training, and under these conditions it produces abundantly blossoms which are extremely beautiful. We have not found the name in the English catalogues, but Mr. Ellwanger includes it in his descriptive list.

— THE RENOVATION OF EXHAUSTED MUSHROOM BEDS may be effected, in some degree, remarks the *Journal of Horticulture*, by a

free application of liquid manure, at a temperature of 100°, enough being applied to penetrate the entire mass of the bed. The drainings from a manure heap are good for this purpose, diluted until the liquid is of the colour of pale ale, 1 oz. or 2 oz. of common salt being added to each gallon. When tank liquid manure cannot be had perfectly clear, soot water of the colour indicated, with salt as directed, may be advantageously applied; or 1 oz. of sulphate of ammonia dissolved in four gallons of water will be found equally beneficial. Salt has been recommended, and lest there be any timid readers who may fear to use it at the strength named, they may take courage from the fact that Mr. Barter regularly uses it at the rate of $\frac{1}{4}$ lb. to a gallon of water, but applied, be it remembered, over the straw covering. So beneficial is salt to mushroom bed that it is used regularly whenever bearing beds require watering, and it has been found that as the quantity is increased so the crops are improved, and the mushrooms rendered more white and fleshy.

— A GRAND specimen of *CATTELEYA WARNERII* was exhibited in June last at the Royal Horticultural Society's meeting, by C. L. Southgate, Esq., of Streatham. The plant was in an 8-inch pot, and bore three fine spikes of blossoms, one bearing six, another five, and the third four flowers, all expanded. The sepals and petals were of a beautiful rose colour, the lip a rich crimson, finely fringed at the margin, and marked with orange on the disk. It was altogether a very striking object, and was greatly admired for the profusion of blossom produced in so small a pot. The free-blooming character evinced by this plant was perhaps owing to the smallness of the pot in which it was grown, so that it may be well for others to experiment in this direction.

— THE *AMARYLLIS MRS. GARFIELD*, which has been exhibited during the past season by Mr. B. S. Williams of Upper Holloway, is a descendant of the fine old *Amaryllis reticulata*, which is well marked by the broad silver band which runs down the centre of each of the evergreen leaves, and by its lovely rose-pink flowers, which are traced with a delicate network of darker pink. In the novelty under notice we have the beauty and delicacy of *A. reticulata* combined with a free flowering tendency. This new hybrid, moreover, has evergreen foliage, and the flowers, which are produced late in the season, are large, abundant, and richly coloured after the style of the parent. The leaves, which are $1\frac{1}{2}$ foot long by 3 inches wide, preserve the characteristic white band.

— THE beautiful *PHALÆNOPSIS SPECIOSA*, says the *Gardeners' Chronicle*, has recently flowered for the first time in England, in the collection of Lieut.-Colonel E. S. Berkeley. Abroad, the proper time for it to flower is from March to May; the flowering in the present instance being no doubt retarded by the check the plant received on its transport to England, it being one of those *Phalænopsis* which travel very badly. The ordinary colour of the flower is white, richly blotched and barred with rosy-purple. In the plant recently flowered the deep rosy-purple colour predominates.

— A CORRESPONDENT of one of the weekly papers, has the following on FORCING SEAKALE:—"I have tried different ways of forcing Seakale, and I find none so successful as the fol-

lowing. I get old flax-seed barrels, saw them in two, and knock out the bottom; one barrel will thus cover two stools. I begin to force about the second week in November, placing the half-barrel over the crown, over which I put about eight or nine inches of fine coal-ashes to prevent the steam of the manure from injuring the crowns; a rough lid is used to cover the top of the barrel, and keep the manure from falling in; this lid can be lifted up at any time to see how the work proceeds. I force two rows at a time, filling up the space between with the manure, which is mixed with tree leaves to prevent too great a heat arising; eighteen inches of manure between the barrels will be quite enough, with a little over them to exclude the light. By this simple method I never fail to have splendid Seakale at Christmas."

— A BUSH of the pretty evergreen *Skimmia oblata* in Mr. Walker's garden at Colwyn Bay became covered with scarlet berries after *S. fragrans* was placed in juxtaposition, though till then, we are told, the plant had never fruited. No wonder, seeing that *S. fragrantissima* (not *fragrans*) is the male form of the species.

— THE common FOXGLOVE appears to have had a prosperous season. A correspondent from Buxton, writing to the *Manchester City News*, in July last, observes:—"I enclose a photograph, by Mr. B. W. Bentley, of Buxton, of a very remarkable foxglove gathered a few days ago in the Coombs Valley, Chapel-en-le-Frith; no one in this neighbourhood has seen anything like it before. A gentleman writing from Lyme Hills says there never was such a summer for foxgloves. That is our experience in this neighbourhood; Corbar Wood is full of them, and in our public gardens there are many specimens—red and white—more than eight feet high. Several of the white varieties have 'sported' in a similar manner to the one photographed; and Mr. Hogg, the curator, is trying to preserve their seed with a view to future results. One white foxglove expanded a large bell-shaped flower, two inches in diameter, at the very apex of the stem, while for eighteen inches below the blossoms were not out." We have seen examples of this kind of growth during the past summer in the Park at Oxford, and Mr. Baxter was on the look-out for seeds with a view to perpetuate it if possible. As described above, the flower stems produced one very large bell erect from the apex, and had a very curious appearance.

— IT is a matter of common experience that if really prime GOOSEBERRIES FOR DESSERT are required many at least of the large-fruited sorts must be eschewed, on account of their deficiency in flavour. There are indeed few kinds which surpass the good old Rough Red or Champagne and Rough Early Yellow. A recent writer states that after trying many kinds, if asked to name four really good varieties, he would give the palm to *Ironmonger*, *Crown Bob*, *Whitesmith*, and *Red Warrington*, as being the best, all points considered, since they are good croppers, of average size, and finely flavoured. The Warrington, he thinks, ought to be grown by every one, as it comes in after many sorts are over, is a wonderfully heavy cropper, and if netted early may be had in good condition for a long period. The tree, moreover, being pendent in habit does not get injured by spring frosts like the upright growing sorts.

— THE Japanese *VIBURNUM PLICATUM* is

quite a rival of the favourite Guelder Rose or Snowball Tree, being equally hardy, equally free in habit, and equally profuse in the production of its globular heads of flowers, which are veritable snowballs as regards form and purity of colour. It is quite a treasure for the shrubby border, and equally valuable for forcing into early blossom. Though introduced from China so long since as 1846, it is not so well known or so generally grown and appreciated as it should be.

— THOUGH Alliums are generally more useful in the kitchen than in the flower garden, yet the new *ALLIUM OSTROWSKYANUM* recently described by Dr. Regel, though not exactly a showy plant, has sufficient distinctness of character and prettiness about it to secure for it a place in the mixed bulb border. Its leaves are flat, like those of Ramsons, and from among them arises the scape, bearing a head of rosy pink flowers. It is doubtless quite hardy as it comes from Turkestan.

In Memoriam.

— MR. JOHN PEARSON, late of Kinlet, died on August 23, rather suddenly, after a long period of failing health, in his 79th year. Mr. Pearson, who was the third son of Mr. J. Pearson, of Kirklees, Yorkshire, was for forty-nine years gardener and forest planter to the late W. Lacon Childe, Esq., at Kinlet, Bewdley, who granted to him and his wife a pension for their lives. He was one of the most energetic promoters of the *United Gardeners' and Land Steward's Journal*. Amongst the craft he was known by the *noms de plume* of Bewdley Forester, Ishmael, Ben Giles, &c.

— JOHN DILLWYN LLEWELYN, Esq., F.R.S., died at Atherton Grange, Wimbledon, on August 24, aged 72 years. He was the eldest son of the late Mr. Lewis Weston Dillwyn, some time M.P. for Glamorgan-shire; was a magistrate and Deputy-Lieutenant for Glamorganshire, of which county he served as High Sheriff as far back as the year 1834; and was a man of high scientific attainments, and one of the oldest members of the Royal Society. He was also one of the oldest Fellows of the Royal Horticultural Society, and the father of Mr. J. T. D. Llewelyn, a member of the present Council.

— GEORGE WARD NORMAN, Esq., of Bromley, Kent, died on September 4, aged 89 years. Mr. Norman's name is familiar to the older generation of horticulturists as the owner of the splendid specimen plants with which Mr. W. Barnes used to combat and sometimes conquer the late Mrs. Lawrence, of Ealing. He was also a warm supporter, and Vice-President, of the Gardeners' Royal Benevolent Institution.

— MR. GEORGE SMITH died at his residence, New Villa, Edmonton, on September 6, aged 64 years. He was a true florist of the olden type, and as such took an active part, in conjunction with Mr. Turner and Mr. Cannell, in the initiation of the recent Dahlia Show at the Crystal Palace, undertaking the duties of Secretary and Treasurer, which from ill health he was obliged to abandon. His judgment on florists' flowers was always held in respect.



W.H.Fitch del

Thron del. Severeys & Bruce sculp

Ericas.

1. Mooreana 2 Douglasii 3 Lady Douglas 4 Lady Mary Scott
5 Countess of Home

NEW BOTHWELL HEATHS.

[PLATE 573.]

WE have the pleasure of introducing to our readers a second group of New Bothwell Heaths. The well-earned fame of Mr. Turnbull in this branch of Floriculture would lead us to expect something good, and we think every one will agree that the forms now pictured are good and more than good—they are supremely beautiful. Surely there must be a revival of taste in favour of flowers so chaste and charming, so that our glass-houses may not for ever be filled with the coarse greenery, which is commendable enough in limited quantities, but is now greatly overdone, to the exclusion of many lovely races of flowering plants—of which the Heaths are just now one of the choicest and the most neglected. We are indebted to Mr. Turnbull for the specimens illustrated herewith and also in our last volume.

Fig. 1. *MOOREANA*.—A very fine Heath of the aristata set, the result of a cross between two of Mr. Turnbull's unnamed seedlings. The leaves are in whorls of four, and very much recurved, fringed with twisted ciliae, and tipped with a long awn. The flowers come in large terminal umbels of a dozen or more, with gland-bordered bracts to the red pedicels, the corolla ventricosely tubular, over an inch long, bright glossy crimson red, with a ring of black at the mouth, and a limb of four roundish pink-tinted lobes. One of the best.

Fig. 2. *DOUGLASII*.—A very distinct variety, with appressed denticulate awned leaves in whorls of four, and umbels of 6—8 tubular almost cylindrical flowers an inch and a half long, of a delicate blush pink, with a dark ring at the slightly swollen mouth, and a large spreading limb of four ovate white segments.

Fig. 3. *LADY DUNGLAS*.—A very handsome Heath produced by crossing *E. Turnbullii* with *E. Marnockiana*. The leaves are spreading, four in a whorl, strongly ciliate and awned; the flowers rather short, barely an inch long, in umbels of 6—8 together, bright crimson red, with dark mouth, and large white spreading limb of four rounded lobes; altogether a very effective and pleasing variety.

Fig. 4. *LADY MARY SCOTT*.—This is of a distinct type and comes from *Aitoniana*, which

it much exceeds in size, and therefore in effectiveness. The leaves are appressed, denticulate and awned; and the flowers grow in umbels of about six together, having a long slender tube slightly inflated at the base and terminating in a broad-spreading limb of ovate segments. The colour is white, with a red throat, and having the faintest lines of red inscribed on the tube. It is one of the best of white-flowered Heaths.

Fig. 5. *COUNTESS OF HOME*.—Another of the aristata set, and a very fine and handsome variety. The leaves are recurved, ciliated, and awned, and grow four in a whorl. The flowers are tubular, slightly inflated, over an inch long, of a rich glossy crimson, with a well-developed black ring at the mouth, and a limb of four ovate segments which are flushed with pink. It is a seedling from *E. Turnbullii*, crossed with *Marnockiana*. Mr. Turnbull describes this as a very free grower and free bloomer, his plant being about 4 feet in diameter and 3½ feet high.

We append the following interesting letter on this subject from Mr. Turnbull:—

"Regarding the raising of new varieties of Heaths I have never made any mystery about it, or concealed my practice in the matter from any one who asked me. I have no hesitation in saying that a good deal might still be done in that way were it taken up by young men; but they should be made aware that patience and perseverance are absolutely necessary for those who make the attempt.

"The impregnation is a very simple affair, but the anthers are generally clustered together, and do not burst of their own accord. The tubular-flowered Heaths, whose flowers it is intended to use, should have the flower taken off and the point of the corolla cut away with a sharp penknife a little below the anthers, which must not be disturbed; when that is done it should be held above the pistil of the flower to be impregnated, and a gentle pressure between the finger and thumb will set the pollen in motion. In many cases one flower prepared as above will impregnate several flowers. Generally the seed-vessels are not long in beginning to swell, and shortly after that I cut off the points of the tubes to near the top of the seed-vessel, and the lower part of the flower remains, unless it shows symptoms of damping, when it should be removed, but cautiously, otherwise the seed-vessel might be taken off with it. When the seeds ripen they should be carefully gathered. In the case of hard-wooded sorts I have generally had the greatest success when the seeds were sown about the latter end of September. I have usually sown them in 3-inch pots, and have had glass cut to cover the tops of the pots, which prevents the soil from drying, and keeps them in a more evenly moistened state. I keep them in a cool greenhouse through the winter, and they are put into

a closer place in spring, and shortly after a few may braird, but I keep the pots over till the following spring, when I have generally got the best braird. If only a few braird in the spring after they are sown, I have generally taken them out with a knife and potted them, disturbing the soil in the seed pot as little as possible, and filling up the places with fresh soil. In some cases when the surface of the pots has got much covered with moss, I have taken off the whole surface deeper than I knew the seeds to be sown, turned it upside down, taken off the soil gently, and picked out the seeds after they had been nearly twelve months sown, resowed them, and had a good braird the next spring. That job I always did when I had plenty of time after working hours, and I managed it without the aid of glasses.

"I may state that hard-wooded Heaths when impregnated with soft-wooded ones, such as *Linæoides*, produce seeds that will often vegetate in two or three months, while seeds taken from the same female parent impregnated with a hard-wooded Heath will take a year or two to vegetate.

"These are the chief things that should in my opinion be attended to by those who feel disposed to give the matter a fair trial; and they may think themselves fortunate if they see the fruit of their labours in the shape of flowers four years from the sowing of the seeds. If they continue their efforts yearly, they will, however, be flowering new seedlings every year, and this cannot fail to prove very interesting.

—ANDREW TURNBULL.

"Bothwell Castle, Oct. 3, 1882."

It may be interesting to note that at Martinmas Mr. Turnbull will have completed his 54th year at Bothwell Castle, under his sixth employer.—T. MOORE.

LANE'S PRINCE ALBERT APPLE.

THE free-cropping character of this fine but too little known hardy variety of Apple is one of its most striking peculiarities. If anything were wanting to demonstrate this, the young trees now growing in one of Messrs. Lane & Son's outlying nurseries at Potten End, near Berkhamsted, might, some few weeks since, have been cited as convincing evidence of its fertility. In this nursery we saw a "drift" or "bed" of young trees, containing some 1,800 or thereabouts, the individual trees not more than 5 ft. to 6 ft. in height, and all bearing freely—bearing many of them over a dozen large well-formed handsome fruit, the crop averaging from 8 to 10 fruits on each plant, while scarcely a plant as we searched row after row was unproductive. This variety does really seem so hardy that even our most uncongenial seasons do not prevent it from producing a crop of some kind, and when the climatal conditions are at all favourable that crop is a heavy one. No doubt the trees in

question were to some extent sheltered, and hence the extraordinary yield which has been obtained in spite of the uncongenial season, but the same tendency is seen everywhere and under all circumstances. The picture was a most striking one, for on most of the trees—single-stemmed juveniles—the Apples, when we saw them towards the end of September, hung like "ropes of onions."

Owing, we suppose, to its not having been sufficiently exhibited, or to some mishap or other, this valuable kitchen Apple, which has been grown for many years with never-failing success by Mr. Lane, has not become so widely known or so freely grown, as it should have been. Indeed it was very little planted outside the Berkhamsted district until within the last few years, when the publication of a coloured illustration of it in our volume for 1875, and subsequently the exhibition of samples of the fruit at South Kensington, have led to its more general recognition amongst fruit growers. Still, it is not so widely cultivated as it deserves to be, and as it must be when its merits come to be more generally known and appreciated. As a culinary Apple it is a variety fit to take its place by the side of such sterling sorts as Warner's King, Ecklinville, Stirling Castle, Stone's Apple, and others of that stamp.

The fruits are usually of large size, solid in substance, handsome in appearance, and excellent as regards cooking properties. They vary in shape from shortly conical or roundish with a smoothish surface, to a taller bluntly conical and somewhat angular form, and under some conditions take on considerably more colour than our figure, from an average specimen of the growth of 1875, indicates.

The tree ranks amongst the hardiest of the hardy denizens of the orchard. We have ourselves often witnessed this peculiarity, for on a large hillside exposed orchard where Mr. Lane cultivates most of the leading sorts grown for market purposes, this variety has stood altogether uninjured, where many of the popular favourites, notably the highly-rated Dumelow's Seedling (Wellington) can scarcely be kept alive during untoward periods such as we have of late years experienced.

On all points, then, Lane's Prince Albert may be set down as worthy of a place amongst the very few kitchen Apples which are really of first-class quality.—T. MOORE.

THE DOG'S-TOOTH VIOLETS.*

THE Dog's-tooth Violets form an extremely pretty genus of the great Lily family, very distinct in appearance and easily grown. They are perfectly hardy, and appear to disregard the irregularities of our climate, which is not the case with many of our introduced bulbous plants, especially those from North America. The common *Erythronium dens canis* and some of its varieties are European; all the rest are American. The species are naturally divisible into two groups—viz., those with solitary flowers, including *E. dens canis*, and its varieties *E. albidum* and *E. propullans*; and those with from one to eight flowers, represented by *E. grandiflorum*, and its varieties *E. Hartwegi* and *E. purpurascens*.

There is no difficulty attending the cultivation of these plants, neither are they very fastidious as to soil, as I have known them thrive in almost any soil and position, with the exception of stiff clay. They thrive admirably in light sandy rich soil; and if the position is sheltered they are extremely showy, and most interesting as a group of hardy flowers. It is not well to disturb them very often, as they will not be nearly so attractive if but half established. They should remain undisturbed for some three or four years, until the bulbs are overcrowded. It must be borne in mind that during the greater part of the summer they are dormant, and hence their exact position should be marked, so that they may not be disturbed when the summer flowering-plants are removed. This could be very easily managed on a rockery, where they would be very charming and welcome.

The bulbs should be planted as early as possible after September, in clumps, to have the best effect. Most of the rarer species will probably be imported, but it is advisable to get home-grown bulbs if possible. In the event of having imported specimens it is desirable at first to pot them in light sandy soil (leaf soil, loam, and sand in equal parts) in small pots, and place them in a cold frame, just keeping them damp until root-action has thoroughly commenced, when they may with-

out hesitation be planted out. This is merely advised as a precaution against possible loss and consequent disappointment.

E. ALBIDUM, *Nuttall*.—Leaves oblong-lanceolate, not mottled or dotted. Flowers solitary, bluish-white, with the segments entire at the base. The flowers are rarely quite white. It is a widely distributed plant, similar to the next, occurring from New York and Pennsylvania to Minnesota and Texas. It flowers in April and May, and was introduced in 1824.

E. AMERICANUM, *Smith*.—Bulbs very small, brownish. Leaves oblong or oblong-lanceolate, mottled and dotted. Flowers solitary, light yellow, 1 to 1½ inch long, frequently spotted with purple at the base; segments slightly toothed at the base. It flowers with us in April and May, and has been known under cultivation ever since 1665. It enjoys peaty soil; in fact it does not thrive so well without as with peat. It is found from Canada to Florida and Arkansas. It has received various other names, as *E. lanceolatum*, *Pursh*, *caroliniana*, *Walters*, *Nuttallianum*, *Schultes fil.*, &c.

E. DENS CANIS, *Linnaeus*.—Bulbs much larger than in the two foregoing. Leaves ovate, ovate-lanceolate, or oblong, copiously mottled. Flowers solitary, 1—1½ inch long and nearly as wide, usually of a pinkish-



ERYTHRONIUM DENS CANIS.

purple colour, but sometimes white, yellow, and of different shades of red. The white variety, which is named *albidum*, is very pretty, as also is the yellow-flowered kind. They are all of extremely easy culture, flowering outside early in April, being perfectly hardy. They are natives of Hungary, Italy, &c., and have been introduced since 1596. The typical form is well figured in the *Botanical Magazine*, t. 5.

E. GRANDIFLORUM, *Pursh*.—A very variable plant, with bulbs frequently 2 inches long but narrow. Leaves oblong-lanceolate, not mottled. Flowers solitary, or usually in racemes with from two to six flowers of a primrose yellow or cream colour, the base more or less tinged with orange, 1½—2 inches long. Mr. Sereno Watson has enumerated some varieties, which, however, he admits may be specific forms. Var. *albiflorum* (syn. *E. giganteum*, *Lindley*) has large white flowers, orange at the base and mottled leaves. Var. *minor* has flowers about an inch long, bright yellow. Var. *Smithii* (syn. *E. revolutum*, *Smith*) has large flowers tinged with purple or rose colour. Some, perhaps all of the

* Abridged from the *Journal of Horticulture*.

varieties are not found under cultivation in this country, but the typical form is not very scarce, having been introduced since 1826. It flowers outside in April and May. It is found in Oregon, California, and Washington Territories.

E. HARTWEGII, *Watson*.—Bulbs small. Leaves small, usually separated, ovate-lanceolate, mottled. Flowers usually two to three, very rarely solitary, in a sessile umbel, 1—2 inches long, bright yellow, orange at the base, with spreading or slightly recurved segments to the perianth. It is Bentham's *E. grandiflorum* (Pl. *Hartw.*, 339), and is an extremely curious and rare species, occurring on the Sierra Nevada from Placer to Plumas counties, but not known in cultivation.

E. PROPULLANS, *Gray*.—Bulbs small, ovoid. Leaves ovate, oblong acuminate, not mottled. Flowers solitary, about half an inch long, bright rose, yellowish at the base. A very scarce and pretty species from Minnesota, not existing in this country but cultivated in America, though of rare occurrence under cultivation.

E. PURPURASCENS, *Watson*.—Bulb 1—2 inches long. Leaves large, more or less oblong, frequently undulated. Flowers usually 4—8 in a sub-umbellate raceme from 1—1½ inch long, light yellow tinged with purple, deep orange at the base. It has received several other names, and amongst them that of *Fritillaria multiscapidea*, *Kellog*. Mr. Watson regards Baker's *E. revolutum* as only a slender one-flowered variety of this plant. It is of comparatively recent introduction, flowering outside in May. Native of the Sierra Nevada, found in the same localities as the last species. It is very beautiful, and by no means common.—N.

PROPAGATE AND PLANT ROSES.

NEARLY every one loves Roses, but many persons do not grow them either so well or so freely as one could desire. Yet their culture is so easy that any person who grows a few, may increase them in a very simple and easy manner by cuttings put in, in October and November, which is the best season in the whole year. Unfortunately many people put in their cuttings too late in the season, generally in February or March. These almost always fail, not one in a hundred growing; whereas when the cuttings are put in in the autumn, very few fail to grow.

Shoots of this year's growth should be selected—not too fatty, nor too thin, but medium-sized healthy growths, and moderately ripe. They should be cut clean to a leaf or joint; the leaves should be removed to a length of five or six inches, and the top cut off two or three inches higher. The cuttings should be put in firmly quite up to the leaves in a nice sandy soil and planted in rows, twelve or fourteen inches apart, with six inches in the rows. In this simple manner a great many plants can be grown with very

little trouble or expense. In about twelve or fourteen months they will be well rooted and ready for removal into their permanent quarters.—M. SAUL, *Stourton Castle*.

VINES AND VINE CULTURE.

CHAP. XXI.—FRUITING VINES IN POTS.

THE advantages derivable from growing Grape Vines in pots are various. Pot Vines are extremely handy, and may be utilised at any time and almost anywhere. It is, perhaps, not so difficult to grow the fruit on the prepared plant, as it is to grow the vine itself. For an early supply of fruit considerable care and attention is, however, required, and failures are more common than successes.

The varieties best suited for fruiting in pots are the free-bearing kinds, such as Black Hamburg, Royal Muscadine, Foster's White Seedling, and indeed all the Chasselas group, Madresfield Court, Royal Ascot, and Alicante. The Muscat of Alexandria is difficult to cultivate in pots, and Gros Guillaume scarcely shows any fruit at all.

The forcing of Pot Grapes may commence in November, or at any subsequent period. Those selected for early forcing should be the earliest ripened, and the canes should have been pruned quite a month before their introduction to heat, otherwise they may bleed. The use of well ripened canes is a most important matter for early forcing.

A low house or pit is the most suitable for Pot Vines. They have simply to be placed on a shelf along the front; or the pots plunged in a slight hot-bed, the rods or canes being allowed to hang loosely until such time as the eyes begin to break. The temperature at first should not exceed 50° by artificial heat, but must be increased as the eyes break, and they begin to grow, to 60°, and about the flowering period to 70° or thereabouts. With sun heat the temperature should, of course, range much higher, but in this respect the treatment of Pot Vines as regards general management, atmospheric conditions, ventilation of the house, &c., is exactly similar to that of the ordinary vinery.

At Syon House, Brentford, the seat of the Duke of Northumberland, Pot Grapes have

for many years been a special feature. Mr. Woodbridge commences forcing the first week in November, the grapes being ripe about the end of March or beginning of April. He commences with a temperature of 60°, raising it 3° or 4° as the buds break, gradually increasing it to 70° or 72° by the time they are in flower, then lowering it to 68° until they have done stoning, &c., when it is again raised to 70° until the grapes begin to colour. Mr. Woodbridge allows a rise of 5° by fire-heat on dull days, and 10° more by sun-heat, giving more air as the temperature rises. The pots used are 11 inches in diameter.

After the Vines are placed in heat, water must be very sparingly applied for some time, until the roots commence to grow; otherwise the soil will become sour, and the roots will decay, so that it is better to allow them to be a little dry than the reverse. As the plants come into full leaf, a copious supply of water will be required. Whilst the fruit is colouring the most extreme care is necessary—especially if the crop be a heavy one—to maintain the plants in a thoroughly healthy state. Careless watering—allowing the plants to flag one day and to be soddened the next—will destroy the best of crops; indeed, more failures are attributable to careless watering than to any other cause. Liquid manure should be frequently given to the healthy plants.

Repotting is, as a rule, seldom required; but if a Vine should chance to get into a sickly condition, it is better to repot. The best time to do this is about the period of the setting of the grapes, the roots being then in an active condition, so that they soon take to the new soil. If repotted earlier, we have found them to show badly, and thereby fail to produce a crop. Top-dressings of manure and soil, or of soil mixed with horn or bone shavings, &c., should be freely applied.

Some difficulty is often experienced in getting the early forced Vines to break regularly. When this is so, the canes should be bent so that the backward eyes may be the most elevated, which will help them to develop into young shoots.

As to their cropping capabilities. A strong Black Hamburgh Vine in a 12-inch pot may be allowed to bear 8 lb. or 10 lb. weight of grapes—from 6 to 8 fair-sized bunches. A

Royal Muscadine Vine should bear from 10 to 12 bunches; but all this is dependent upon the strength and health of the plant. It is better to undercrop than overcrop Pot Vines, for the fruit on the overcropped plants is sour and useless.

Modes of Training Pot Vines, &c.

The ordinary utilitarian method is to train them to a trellis, the plants being placed about 2 feet apart, so that when the side shoots with the fruit, &c., are trained out the whole trellis may be covered. Another mode is to twist the canes coil fashion round two or three strong stakes placed in the pot, thus giving the plants when fully grown the appearance of columnar bushes. Another mode is to train the shoots so as to form a sort of umbrella head, with the bunches hanging round. These latter are all more or less graceful and ornamental, and the Grape Vine is a truly ornamental plant.—A F. BARRON.

THE CARNATION BLOOM OF 1882.

IF there be any amongst those who may note this heading inclined to ask what new thing can be said of the flowers of one season as compared with those which have preceded it, I may answer that every season and each day brings its variety; sometimes indeed, unchangeable as are the laws of Nature, very startling divergences. No length of experience can absolve the observer from the necessity of constant watchfulness, and as persistent action, in aid of or to do battle with some of the forces or phenomena of Nature. And there is in this very variety occasion of interesting record if well set down.

The past season has fully enforced this lesson. On the whole, and writing now, September 21st, at the very close of the blooming season, far beyond the date of an ordinary season, I gather from the communications of many friends and my own experience that the bloom has been, beyond the average, beautiful in character, but intermittent in a strange degree, and full of surprises. In this respect indeed the flowers followed, strictly I assume in natural law, the season itself. March and June changed places, and the cold we should have had in

the former was meted out with interest in the latter month. The result was abnormal character in all the earlier blooming varieties. So marked indeed was this, that of seven plants of Sir Garnet Wolseley (Hewitt), a fine P.P.B., one only was true. Then the bloom which during March and April promised to be early beyond all precedent, and which with me commenced in the middle of May, was without a parallel slow in development. All through June the movement was of the slowest, sometimes indeed it seemed positively retrograde, and expectation was kept on the full stretch, whilst insect life demanded unremitting attention to save from pitiful evil. July followed June, with less than its usual warmth, and more of rainfall, and it was only when August had set in that we got a brief spell of genial summer weather. Nevertheless, wherever there was a sufficiency of means for efficient protection, good light, and perfectly ventilated glass erections, I believe the flowers were large, and the colours and character generally fine in a degree never surpassed.

This was our experience, and certainly judging from the magnificent flowers shown at South Kensington it was the experience of my friends Mr. Turner, of Slough, and Mr. Douglas, of Loxford Hall. Oxford and Manchester fully sustained this inference. The bloom, contrary to early promise, was very late but good.

During the last few years great strides have been made, and varieties of much excellence introduced, in many cases surpassing and therefore displacing the older sorts. This has been very marked in the Scarlet Bizarre class, which is generally regarded as the highest type of development. Here Admiral Curzon and Dreadnought, which for excellence of properties will probably never be surpassed so long as they can be successfully grown, have many worthy companions of younger life, and therefore, as is usually the case, of more robust habit, thus giving greater results for less labour, a point always of importance. The best with me this year were Arthur Medhurst, Ben Simonite, Charles Turner, Edward Adams, Fred, George, James M'Intosh, very grandly indeed shown by Mr. Turner at South Kensington; John Hines, Philip

Thomas, Rayner Johnson, and Robert Lord. Mercury (Hextall) was very finely shown by Mr. Simonite at Manchester, large and beautifully marked; but fine as it was, it could not get a place in its class against the brilliant flowers of Curzon opposed to it. Wm. Spoor, with its smooth, lovely rounded petals and well-defined markings, would be one of the finest varieties existing, but for its generally flushed white. When this drawback is not seen it is grand indeed.

Crimson Bizarres are another rich class. In the high-coloured section, Master Fred (Hewitt), a variety sent out last season, is glorious for its superb markings, colours, size, form, and smooth edges. First indeed it undoubtedly is of the higher coloured section. E. S. Dodwell, another variety of Mr. Hewitt's, is very fine. To be seen at its best it requires the aid of a card before complete expansion has been attained, as it has an inclination to reflex its guard petals, but with this aid it is very glorious. Were not Harrison Weir one of my own bantlings I might break into raptures with its beauties. As it is, I must content myself with saying that Master Fred, E. S. Dodwell, Harrison Weir, Wm. Skirving, Rifleman, and J. D. Hextall, are six unbeatable flowers, and whoever possesses the lot will have a rich collection. But some others may be enumerated, and of these with me Dr. Cronin, Mrs. Gorton, Robert, Shirley Hibberd, Squire Dodwell, Stanley Hudson, and John Harland were good. They should be in every collection.

In Pink and Purple Bizarres, though frequently there is so close a fusion between these and the c.b.'s that separation becomes difficult, there are some very beautiful varieties. First and foremost, *seniores* as *prior*es, stands Sarah Payne, unbeatable for delicacy of colours, delineation, and chasteness of the ground. Unhappily it is delicate in habit, and far from robust in its growth; but it is unsurpassed and unsurpassable in its beauty when well done, and will afford exquisite delight so long as it can be grown. Fortunately it is not alone in its class. Sir Garnet Wolseley (Hewitt) is a variety of great excellence, and Unexpected (Turner) is also grandly beautiful. Some others also of recent introduction will repay the attention of the

cultivator, and of these I may name H. K. Mayor, Squire Llewelyn, Squire Penson, and Thomas Moore. As in the Scarlet Bizarre class, I abstain from speaking of flowers I offer this season only.

Purple Flakes are the shortest of all the classes. Here we had Dr. Foster, noteworthy most of all for its ground of lovely white and flake of lilac, but generally deficient in colour; Florence Nightingale, worthy of its name for character, richness of colour, purity, and definite striping; James Douglas, a grand, full, and well-marked variety, worthy also, let me say, of the name it wears; Squire Meynell and Earl of Stamford—the latter as sent to me, a synonym only of the former; certainly altogether unlike the Earl of Stamford originally shown in 1856 by the late Mr. Addis. But being like Meynell it is good.

Of Scarlet Flakes, among the older varieties Annihilator, Clipper, Dan Godfrey, James Cheetham, John Bayley, and Sportsman, were each good. Of my own seedlings already sent out, we had fine flowers from Bayley Jun., Friar Tuck, John Ball, Richard Gorton, Thomas Tomes—this especially fine, but it is sorely sportive, quite half the plants going to a glorious scarlet Self—and Wm. Mellor.

Rose Flakes, exquisite in their beauty and feminine in their grace, form indeed a richly endowed class. Apollo (Fletcher) and James Merryweather, the latter so well known for its beauty of marking and breadth and shape of petal, are synonymous—so alike, indeed, that the wonder is how a seedling came to be so near its parent. But this is not the only mystery of Nature which a close observer will note as he goes forward in his study. One thing only will he venture to generalise into a law—Nature abhors hard and fast lines, and is full of variety; but for all this she will occasionally give repeats so close that the unaided eye fails to find a difference. Crista-galli, John Keet, Mrs. Tomes, Mrs. Matthews, Mrs. Home, and Sibyl were all fine; and last of all we had Mr. Gorton's fine trio—Tim Bobbin, undoubtedly the finest I have ever grown, Rob Roy, and Robin Hood. Whoever wants fine Rose Flakes must get these directly they are accessible, and to these he should add Jessica, shown so finely by Mr. Turner at South Kensington and Oxford.

As with other classes, I abstain from remark upon the flowers offered by myself this year; but before I close with Carnations I wish to speak of the great excellence of Matador, s.f., as shown by Mr. Turner both this year and in 1881. It is one of the finest marked s.f.'s in cultivation.—E. S. DODWELL, *Oxford*.

THE FRANCOAS.

UNDER the specific designations of *appendiculata*, *sonchifolia*, *rupestris*, and *ramosa*, are cultivated three Chilean herbaceous plants belonging to the genus *Francoa*, the names of which, in consequence probably of the general similarity of appearance presented by the plants, have become to some extent mixed up. They have a very distinct aspect amongst other flowers, and are interesting plants, worth a place in select gardens, being of free growth, and nearly hardy, that is to say, they may be kept with perfect safety during winter in a cold frame properly appointed and ventilated, and then planted out in summer, or they may even survive uninjured through an ordinary winter outdoors, if planted in a favourable sheltered situation—at least in the south of England.

The confused nomenclature of these plants has recently engaged the attention of Mr. R. A. Rolfe, of the Kew Herbarium, who in the *Gardeners' Chronicle* (N. S., xviii., 265), has published his conclusions respecting them, from which source we have gleaned the following particulars:—

The genus *Francoa* was dedicated by Cavanilles in 1802 to the memory of Francisco Franco, a Spanish botanist of the sixteenth century, upon materials collected near the Port of San Carlos de Chiloe, by Don Louis Nec, naturalist to the Spanish expedition to South America, under the ill-fated Malaspina. The specific name adopted, *appendiculata*, refers to the eight short, erect, filiform, pale yellow glands, alternating with the stamens. Immediately afterwards, Cavanilles published a figure of the plant, with description, and in a note founded a second species, *F. sonchifolia*, upon an old figure of Feuillée's, which represents a plant with a well-developed stem about 4 inches long. *F. rupestris*, of Poeppig, published by Kunze in 1831, is only this *F. sonchifolia*, while a second plant met with in gardens under the name *F. rupestris*, is simply *F. appendiculata*. In 1828 D. Don proposed a third species from a plant collected at Santiago, *F. ramosa*, which he afterwards figured, and which is characterised by the much-branched glabrous inflorescence, glabrous sepals, and white petals. De Candolle, in 1838, overlooked *F. rupestris*, but added a fifth species, *F. glabrata*, characterised by the leaves being glabrous on the upper surface, and the petals white, scarcely longer than the calyx; he doubtfully refers it to *F. ramosa*, and probably rightly so. It was collected by Claude Gay in the Cordilleras.

For horticultural purposes these plants are, no doubt, sufficiently distinct; and may be separated by the following characters:—

FRANCOA APPENDICULATA, *Cavanilles*.—"Stem very short, rarely an inch long; leaves longer than in the two following, with smaller auricles, and 2—3 inches at the base of the petiole almost naked; inflorescence usually compact, and very little branched; rachis and sepals pubescent; petals pink, often with a darker blotch near the base." Figured in *Cavanilles Icones* vi., t. 596; *Botanical Magazine* t. 3178; *Botanical Register* t. 1645; *British Flower Garden* v., t. 151; *Botanical Cabinet* t. 1864 (as *sonchifolia*).

FRANCOA SONCHIFOLIA, *Cavanilles*.—"Stems 3—4 inches long; leaves with short petioles usually decurrent below the auricles to the extreme base; inflorescence more branched than the last, flowers more loosely arranged; rachis and sepals pubescent; petals pink, often with a darker blotch near the base." Figured in *Botanical Magazine* t. 3309; *British Flower Garden* v., t. 169.

FRANCOA RAMOSA, *D. Don*.—"Stem 3—4 inches long; leaves with short petioles, usually decurrent below the auricles to the extreme base; inflorescence much branched, flowers loosely arranged; rachis and sepals glabrous; petals white." Figured in *British Flower Garden* vi., t. 223; *Botanical Magazine* t. 3824.

Mr. Rolfe remarks that the conflicting opinions expressed respecting the affinities of this genus and its position in the natural system, renders it additionally interesting. Thus it has been placed near to and included in Crassulaceæ, near Oxalidææ, near Rosaceæ, in a distinct order Galacineæ, near Saxifragaceæ, near Pyrolaceæ, between Umbellifereæ and Araliaceæ. According to Bentham and Hooker, in the *Genera Plantarum*, the group *Francoeæ* forms a tribe of Saxifragaceæ, between the herbaceous Saxifrageæ and shrubby Hydrangeæ. The affinity with Saxifragaceæ is no doubt the correct one. The two tribes agree in being scapigerous herbs with a diplostemonous andræcium; and differ in Saxifrageæ having pentamerous flowers and a 1-celled ovary; while *Francoeæ* has tetramerous flowers and a 4-celled ovary.

Possibly some share of the confusion existing in the nomenclature of these plants may be traceable to the variation which so commonly occurs amongst seedling plants, since the *Francoas* are freely and indeed usually propagated by this means, though they may also be multiplied by division of the plant. The figures in Sweet's *British Flower Garden* are particularly good.—T. MOORE.

AQUATIC PLANTS.

IN all gardens where interesting plants are grown and appreciated these should find a place. Many of them are small and take up but little room. Of such is *Azolla caroliniana*, which grows like a tiny little *Selaginella* on the surface of the water. *Trianaa bogotensis*, or Sponge Leaf, is larger, but also floats on the surface, and is very interesting, its circular leaves, each the size of

a halfpenny, being quite fibrous below, the swollen space between the upper and lower sides being composed of air-cells. *Salvinia natans* is another little floating plant of interest, which like the above may be cultivated in an inverted bell glass a foot in diameter. Partial shade is essential or confervoid growth becomes too troublesome.

Of *Nymphæas* there are two, viz., *N. cærulea* and *N. pygmæa*, which will succeed well in limited quarters; and to these may be added *Ceratopteris thalictroides*, an aquatic fern, and the pale yellow-flowered *Limncharis Humboldtii*. During the cold dull months of winter nothing can well be sweeter or prettier than a basin or tank filled with the Cape Pond Weed (*Aponogeton distachyon*), which in a cool house yields quite a profusion of its Hawthorn-scented flower spikes during December and January, just when most wanted.

There are many other aquatics which may well and easily be grown in large places where every convenience is at hand for them, but the above are so readily grown in the most ordinary of vessels or appliances that I have thought them especially worthy of notice in these pages.—F. W. B.

LITTLE BOG GARDENS.

MY first attempt at growing our native insectivorous plants were far from being a success. I tried *Droseras*, *Pinguiculas*, &c., fresh from the bogs, in peat and other soil, but all to no purpose; they succeeded for a time, but ultimately died away. At last the thought occurred to me, "Why not try them in living sphagnum moss?" and my first attempt was so successful, that we have now quite an interesting collection of *Droseras*, *Pinguiculas*, *Dionæas*, &c., growing in this way.

I fill a six- or a twelve-inch seed-pan with a layer of rough peat on the bottom, then add a layer of old sphagnum moss, finishing off the surface above with a layer of fresh growing points of the same, and then give the whole a good watering. The convex surface above is now ready to receive the plants, which are dibbled in over the surface, and the whole is again watered to settle them firmly in their places. The base of the pan



is then placed in a shallow saucer or "flat" containing water, and in this way there is no danger of the upper pan ever becoming dry, as it supplies itself from the water in the lower pan by capillary attraction.

The pans are placed in the full sun on a shelf in a cold house; and so treated, we find *Droseras*, *Pinguiculas*, &c., thrive wonderfully well, and give but little trouble. All the native *Droseras* do well, so also *D. fili-*



forme, *D. capensis*, and *D. binata*; even *Drosophyllum lusitanicum*, a by no means easy subject to cultivate in any permanent way, has been a perfect success this season as

grown on the above plan. In a snug sunny window all the plants above alluded to might be well and easily grown in little pans of sphagnum moss as above directed.—F. W. B.

APPLE SCHOOLMASTER.

[PLATE 574.]

THE drawing from which our plate of this new variety of Apple was prepared, was made by Miss Annie Laxton from fruit of last season's crop. The variety produces large, handsome, and good all-round cooking and dessert fruit, and will form a valuable addition to the limited list of really good and useful Apples, which are hardy and good bearers. We are indebted to Mr. Laxton for the following particulars respecting it:—

"The Schoolmaster Apple was raised in 1855, from a large yellow cooking Apple brought by Miss Watson to Stamford, from London, Canada West. The original tree was growing in the garden of the old Stamford Grammar School, and was thence removed into Oxfordshire, but probably being too large to secure its safety, it succumbed. The

variety has, however, survived, through a graft having been furnished to Mr. Laxton, who has propagated it at Girtford.

"The fruit is large and conical, having a yellowish green skin freckled with russet, but not quite so much so generally as is shown by the artist, and when fully ripe it is richly streaked with red. The flesh is white, and crisp, the flavour pleasantly sharp but sufficiently sugary to make it an agreeable eating Apple. It is, however, especially deserving as a good cooking variety. It ripens in October, and will remain in condition until January.

"The tree is hardy, a vigorous grower, not liable to canker, and most fertile under adverse circumstances. At Girtford, grafts of the present year have borne fruit. It is to be sent out this autumn through the trade."

This Apple received a 1st-class Certificate from the Fruit Committee of the Royal Horticultural Society in 1880; and it may be noted that out of a very large number of promising new Apples submitted to the Committee during the past three years, three only have received Certificates, Schoolmaster being one of the number. We notice that a figure of it occurs in the newly issued part of the *Herefordshire Pomona*, which has just come to hand, and which fully maintains its high character as a pomological picture gallery.—T. MOORE.

MARIE LOUISE D'UCCLE PEAR.

THIS Pear will, I think, when it becomes better known, be planted extensively. The fruit is of good size, handsome and rich. It is in season in October and November. The tree grows vigorously, and forms a handsome pyramid; and judging from what I have seen of it, I believe it is a great bearer. There is only one tree of it here (a handsome young pyramid), but this bore a heavy crop of fruit last year, which, owing to the heavy crop and unfavourable season, was rather small. This year it has borne a crop of very nice fruit. The tree had this year a better crop of fruit than any one pyramid in the Gardens.

The crop of fruit on the Marie Louise Pears on the walls has been a complete failure. There are ten fine healthy trees on the walls here: one on a south, three on an east, and six on a west aspect. These ten trees, all fine and healthy, did not bear one dozen fruit this season.—M. SAUL, *Stourton Castle*.

THE RANUNCULUS.

THERE is much reason to believe that the beautiful varieties of *Anemone coronaria*, both double and single, are becoming more popular than they were a few years ago, because attention has recently been called to their great beauty, and their value in the open garden in spring. But what of the Ranunculus? Where are the one hundred and fifty or so new varieties the late Mr. Carey Tyso, of Wallingford, who died last year, catalogued in 1874, all of his own raising, in addition to over two hundred others raised by Scotch and English growers? What

became of this collection at Mr. Tyso's death? There is much reason to fear a large proportion of these named varieties is lost to cultivation. More's the pity, for the Ranunculus is a lovely flower, of a very satisfying character, though it must be grown in suitable soil and under favourable conditions.

There are two distinct classes of the Ranunculus, viz., the Turban varieties, which are of Dutch origin, and the Persian Ranunculus. This last is a native of the Levant, and it was imported into this country and cultivated by Gerard as early as the year 1596; but previously to this date it was highly esteemed in the East, and formed the subject of some of the legendary reminiscences of the Imperial Gardens of the Seraglio at Constantinople. The English and Scotch Ranunculus are improvements and additions on the Persian type; and though they are not so double in some instances as their originals, they have in the past served the useful purpose of bearing seeds. The Turban varieties are quite distinct from the Persian, and of these there are five known varieties only, viz., Scarlet, Yellow, Dark Brown, White, and Carmine. These are hardier than the Persian varieties, and they have larger and coarser leaves, and coarser petals. The Scarlet Turban variety is largely grown by some of the market gardeners round London for bunching for market in spring.

Will a time of revival come for the Ranunculus as it has come to the Auricula and other flowers? It is greatly to be desired. It is a flower of such distinctive properties and attractive character that it would be a great pity for what fine-named varieties there are still existing to become altogether lost. Who will lead the way in bringing about this revival?—R. DEAN, *Ealing*.

ROSE TYPES.*

AMONG the Hybrid Noisettes we find two types. The first is the MDLLE. BONNAIRE TYPE.—The flowers are of medium size, and of circular very beautiful form. The growth is moderate or dwarf. The foliage is rather small and somewhat crimped; the wood light green, fortified with numerous small spines. Though devoid of

* Concluded from page 136.

fragrance these are our most charming white roses. The flowers are freely produced throughout June and the summer months. The varieties belonging to the type are Eliza Boelle, Mad. Noman, and Mad. Oswald de Kerchove.

MAD. A. DE ROUGEMONT TYPE.—The varieties of this type differ greatly from those of the preceding. The habit of growth is free or vigorous, the wood is smoother, the foliage more oval and glaucous like the Bourbon roses. The flowers are even more freely produced than those of the other type, but are inferior to them in quality. The principal sorts are: Baronne de Maynard, Coquette des Alpes, Coquette des Blanches, Mad. Auguste Perrin, Mad. François Pittet, Perfection des Blanches.

GLOIRE DE DIJON TYPE.—The head of this family was sent out in 1853, and is the variety from which most of the Climbing Teas have sprung. Young plants of this type are often difficult to start after being rooted from cuttings, but when well established grow luxuriantly. The parentage of Gloire de Dijon is unknown, but I believe it must have originated from a natural cross between some Bourbon and Noisette (Tea-scented) Roses. The foliage shows much of the Bourbon character; the flowers are of globular form, very large, and full. Varieties belonging to this type are: Antonia Déarli, Belle Lyonnaise, Gloire de Bordeaux, Jean Lorthois, Mad. Bérard, Mad. Trifle, Marie Bertin.—These types are about all that are really distinct.

Among the Hybrid Teas it is likely that a separation into groups will be desirable at some time in the future, as this is destined to be an increasing class, but at the present time La France represents the class in a sufficiently distinct way.

The Teas might be arranged in family groups, but this is a task which I shall not attempt until some other time. It would be a division less useful than those given.—H. B. ELLWANGER, *Rochester, N.Y.*

REGISTER OF NOVELTIES.

NEW PLANTS.

CROTON EYREI, *Hort.*—A neat-habited and very elegant hybrid Croton with long narrow recurved leaves, very freely variegated with golden yellow, the young branches and petioles red; the leaves have a very pleasing twist, and seem to colour well in a young state; it is a hybrid between *C. Johannis* and majesticus; 1st-class Certificate R.H.S., Oct. 10.—C. Ross.

CYPRIPEDIUM ARTHURIANUM, *Rehb. f.*—A very fine hybrid raised between *C. insigne*, and *C. Fair-ricanum*; it has a very fine dorsal sepal which is pale green, tipped with white, and ornamented with clear

dark pencillings; 1st-class Certificate R.H.S., Oct. 10.—Veitch & Sons.

CYPRIPEDIUM RETICULATUM, *Rehb. f. (Xenia Orchid., ii., 223; Gard. Chron., N. S., xviii., 520).*—A remarkably distinct and singular species of Lady's Slipper, of quite a new type as compared with the species previously known in cultivation. It comes from Ecuador, and is of vigorous habit, with a strong woody rhizome and a paniculate inflorescence, sometimes consisting of as many as seven flowers. The leaves are ligulate acuminate, nearly three feet long, dark green and rough like shagreen leather on the upper side. The flowers, which emerge from ligulate ancipitous carinate bracts, are apple green when they first open, the centre of the sepals becoming whitish later on; the dorsal sepal is ligulate, the inferior one oblong, both much crisped, and reticulately nerved, while the lip forms a blunt pouch, the whitish-yellow inflexed portion covered with blotches, which are mostly green, but a few of them sepia brown. It was found by the late G. Wallis, and has been collected for Messrs. Low and Messrs. Veitch, the latter of whom have recently flowered it.

CYPRESSUS LAWSONIANA ERECTA ALBA, *Hort.*—An interesting and ornamental variety of the Lawson Cypress, but having no claim to rank with *erecta viridis* as regards its habit. It is in fact a variety of slender twiggy growth, stiff and compact, but feathery at the points, and of a rich glaucous whitish-grey or silvery hue; 1st-class Certificate R.H.S., Oct. 10.—L. F. Davis.

HABERLEA RHODOPENSIS, *Frivaldsky (Bot. Mag., t. 6651).*—A charming little hardy perennial of the Gesneraceous order, closely related to *Ramondia*, and found abundantly on the southern declivity of the Balkans. It is a stemless plant, with radical obovate or oblong-oval, deeply crenate hairy leaves, and stout purple-brown scapes 4–6 inches high bearing 2–5 pretty umbellate drooping flowers of a pale lilac colour, with a tubular corolla having an obscurely two-lipped limb with rounded emarginate lobes. Flowers in April.—Kew.

LAVATERA ARBOREA VARIEGATA, *Hort.*—The Tree Mallow is an evergreen shrub which will stand uninjured in all moderately mild winters and in favourable situations. The variegated variety resembles the type in all but the variegation of its ample deeply lobed foliage, which shows an elegant and effective combination of dark green, pale greenish grey, and pure white. It is said to come true from seeds, and is likely to be a grand ornamental plant for large beds during summer. Plants potted up and kept in a cool house during winter will make splendid specimens the second season. See p. 106.

LILIUM AURATUM VIRGINALE, *Hort.*—Not a new but a rare form, with white flowers wanting the usual spotting found in the blooms of this fine species, and being simply banded with yellow; it is a distinct and pleasing variety; 1st-class Certificate R.H.S., July 25.—Veitch & Sons.

MORMODES PARDINA UNICOLOR, *Hooker.*—A handsome and now little grown Mexican Orchid, with stout oblong pseudobulbs a foot high, plaited lanceolate leaves, and long radical drooping racemes of fine singularly formed yellow flowers, which have a powerful and delicious aromatic perfume; 1st-class Certificate R.H.S., Oct. 10.—Veitch & Sons.

NEPENTHES NIGRO-PURPUREA (*Gard. Chron., N. S., xviii., 425, fig. 70.*)—A very distinct and handsome Pitcher plant recently introduced from Borneo, and probably of specific rank. The cylindrical stems bear leathery glabrescent leaves, acute at both ends, and pouch or bag-shaped pitchers which are of a dull purplish-brown colour, almost self-coloured, being marked only by a few scattered paler spots; these pitchers are about six inches long by two and a half inches in diameter, and have a

few stellate hairs on the surface; the wings are broadish, with a fringe of teeth and incurved, and the obliquely ovate mouth is bordered by a rim of numerous closely-set purple or whitish ribs, and prolonged at the back into a flattened stalk supporting the ovate-oblong purple lid which is mottled on the lower surface.—W. Bull.

ORNITHOGALUM THYRSOIDES, *Jacquin*.—A strong-growing greenhouse bulb, with elongate broad-lanceolate leaves, and scapes a foot high, producing dense corymbose racemes of white flowers an inch across, with a dark disc; a very showy plant, introduced in 1757, but not so commonly grown as it deserves to be; 1st-class Certificate R.H.S., Oct. 10.—R. Veitch & Son.

PERNETTYA MUCRONATA.—The following new varieties of this elegant hardy evergreen bush produce varied and richly-coloured fruits in the autumnal months, and are of a very ornamental character:—*alba*, berries white; *carnea nana*, berries flesh-colour, dwarf habit, firm and distinct; *macrocarpa*, berries large, of a dull deep crimson, in very fine clusters; *nigra major*, berries large, maroon crimson or almost black, a strong grower, with the fruit in large clusters; *purpurea*, berries pale purple, extra fine; *sanguinea*, berries deep crimson, distinct and extra fine; a free grower. The berries, which are as large as whortleberries, are of a pleasing and ornamental character. They were each awarded a 1st-class Certificate at the R.H.S., Oct. 11.—L. T. Davis.

PHALENOPSIS ESMERALDA, *Rehb. f.*—A pretty and interesting epiphytal Orchid, having the usual dwarfish habit of growth, with oblong ligulate leaves, and tall slender spikes of 15–20 flowers, which are pale pink with a deep carmine purple lip; botanical Certificate R.H.S., Oct. 10. Cochín: China.—B. S. Williams.

RHODODENDRON (HYB. JAVANICUM) SIR GARNET WOLSELEY.—One of the *R. javanicum* type, with the large flowers three inches in diameter, in large trusses, of an orange-buff colour. It seems to have come from the *jasminiflorum* hybrids, with a new infusion of *javanicum* blood, which gives to it a much grosser aspect, with a bolder truss; 1st-class Certificate R.H.S., Oct. 10.—Veitch & Sons.

RHODODENDRON (HYB. JAVANICUM) SIR BEAUCHAMP SEYMOUR.—Flowers pale yellow, with reflexed segments, and bright red stamens; fine and distinct, but having the flowers smaller than in the preceding variety; it is one of the same cross, but not so robust as the last; 1st-class Certificate R.H.S., Oct. 10.—Veitch & Sons.

TIGRIDIA GRANDIFLORA ALBA, *Carrière (Revue Hort., 1882, 427)*.—This is described as being a very handsome plant with the habit and general aspect of *T. conchiflora*, from which it appears to have originated. The flowers are large, pearly-white, marked at the base of the perianth segments with large spots of reddish brown on a yellowish ground, which affords an effective contrast with the white. It was raised and recently sent out by M. Hennequin, of Angers.

NEW FLOWERS.

DAHLIAS (Show):—*Golden Drop*, a promising bright yellow self, small as shown.—Rawlings Bros. *Harrison Weir*, a fine clear yellow self, with well-formed petals, and good outline and centre; 1st-class Certificate R.H.S., Oct. 10.—Rawlings Bros. *Mars*, very bright scarlet, large, fine in shape, with good high centre.—Keynes & Co. *Mrs. Tranter*, dull red flushed with magenta, edged and suffused with maroon; a large well-formed flower something in the way of Alexander Cramond, and with rather pointed petals.—J. Walker. *President*, pale primrose yellow, with a slight pinkish tinge in the centre; very like Harrison Weir.—G. Harris. *Skylock*,

orange-scarlet, bright in colour, but a little rough, owing doubtless to the lateness of the season.—Rawlings Bros.

Of Fancy varieties the following may be noted:—*Duchess of Albany*, warm orange-yellow streaked and spotted with crimson, the blooms large and symmetrical, with fine shell-like florets; 1st-class Certificate R.H.S., Oct. 10.—C. Turner.

Of Border varieties we have the following:—*Constance*, called also White Cactus, a neat medium-sized floriferous variety with loose double white flowers less formal than in the show sorts; likely to be useful as a white flower for the larger class of floral decorations; it has, however, nothing in common with the Cactus Dahlia (*Juarezii*).—H. Cannell & Sons.

Of New Pompon Dahlias we have to record the following:—*Coquette*, pale red florets with a yellow reverse; distinct. *Cupid*, like Little Princess, but somewhat larger in all respects. *Garnet*, pale orange scarlet, a finely-formed and pleasing variety. *Isabel*, pure bright scarlet florets, slightly reflexed, good form, and very pleasing; 1st-class Certificate R.H.S., Oct. 10. *Little Duchess*, pale ground, tipped with crimson purple; finely formed florets and exquisite shape; 1st-class Certificate R.H.S., Oct. 10. *Little Princess*, French white ground, slightly tipped with reddish purple; small, good form, pretty and distinct; 1st-class Certificate R.H.S., Oct. 10. *Nymphé*, pale yellow ground, slightly edged with amber, very pretty, and of fine form; 1st-class Certificate R.H.S., Oct. 10. *The Khedive*, pale ground, heavily tipped with maroon, good shape.—All from Mr. C. Turner.

Of New Single Dahlias our register comprises:—*A. F. Barron*, pale purple with a side edging or flame of pale lilac, and in some cases broadly-flamed with the same colour.—T. S. Ware. *Cherry*, cherry suffused with bright rose, and flushed with rosy magenta towards the edge, very fine and distinct; 1st-class Certificate R.H.S., Oct. 10.—T. S. Ware. *Clown*, pale lilac, striped with reddish-purple, and flamed with purple.—T. S. Ware. *Coquette*, mottled red and yellow, distinct and pleasing.—T. S. Ware. *Distinction*, a fine pale shade of purple.—Messrs. Jeffries. *Francis Fell*, rich crimson purple passing to violet at the base of the florets; 1st-class Certificate R.H.S., Oct. 10.—T. S. Ware. *George Clarke*, in the way of Paragon, but much more constant in its marking.—T. S. Ware. *Lucy Ireland*, rich crimson lake, flaked with purple; pure and distinct.—T. S. Ware. *Marguerite*, rosy purple, paler round the eye, the edges of the florets silvery magenta pink, very pretty and pleasing; 1st-class Certificate R.H.S., Oct. 10.—H. Cannell & Son. *Mauve Queen*, pale-purplish mauve, large, broad, finely-formed florets; extra fine.—T. S. Ware. *Miss Maud Watson*, a pretty variety, with delicate rosy-pink flower-heads.—Messrs. Jeffries. *Mrs. Burbidge*, maroon crimson suffused with purple, a small flower, but very pretty; 1st-class Certificate R.H.S., Oct. 10.—T. S. Ware. *Mrs. Goldring*, rose pink delicately shaded with purplish mauve, large, finely-formed stout florets, distinct; 1st-class Certificate R.H.S., Oct. 10.—T. S. Ware. *Mrs. Jeffries*, a handsome variety with the florets of a fine deep cardinal colour.—Messrs. Jeffries. *Pantaloons*, described at p. 156; 1st-class Certificate R.H.S., Oct. 10.—T. S. Ware. *Red Light*, very rich scarlet; one of the most striking of the scarlet-flowered sorts, extra fine.—T. S. Ware. *Single Zinnia*, bright orange scarlet, distinct and pleasing.—T. S. Ware. *Thalia*, centre rich scarlet crimson, paling off to purple crimson at the points of the florets.—T. S. Ware. *Tyro*, a lovely variety, orange red round the eye, the florets flat and tinted with bright red purple towards the points; a distinct and pleasing variety; 1st-class Certificate R.H.S., Oct. 10.—H. Cannell & Son. *Violet*, crim-

son much flushed with violet-purple; distinct and good.—T. S. Ware. *Walter Ware*, shaded crimson, flowers of good form.—T. S. Ware. *W. H. Baxter*, a very handsome variety, with the florets of a deep crimson, and having a conspicuous zone of yellow at their base.—Messrs. Jeffries. *White Star*, pure white, the florets slightly reflexed, stout, and of fine form; 1st-class Certificate R.H.S., Oct. 10.—T. S. Ware. *Yellow Gem*, pale yellow; fine florets and form; a medium-sized reflexed flower of model form; 1st-class Certificate R.H.S., Oct. 10.—H. Cannell & Son.

LOBELIA, *White Emperor*, a pure white flowered variety of the Speciosa type, compact, pure in colour, and with flowers of good form.—W. & J. Brown.

PENTSTEMON, *Mrs. M'Farlane*, a very handsome variety, having a densely crowded spike of flowers, which are individually large, with an open throat and spreading limb; the colour is reddish purple, with a deep claret throat.—H. Cannell & Son.

ROSE (HYBRID H.P.), *Earl of Pembroke*.—A beautiful dark reddish crimson Rose, of good form and substance, with a delightful perfume like that of La France; the flowers are large, of great depth, and quite full; 1st-class Certificate R.H.S., Oct. 10.—H. Bennett.

NEW FRUIT.

MELON, *Burghley Pet.*—A green-flesh variety of very great excellence, the result of a cross between Victory of Bath and Dickson's Exquisite, and of remarkably fine flavour; 1st-class Certificate R.H.S., Oct. 10.—R. Gilbert.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE for October contains plates of *Albnea Nelsoni*, N. E. Brown [t. 6649], a Natal plant with bulbs as large as an apple, composed of bright-green scales, tapering concave leaves 3—4 feet long, and a scape 4—5 feet high bearing oblong flowers an inch and a-half long, white, with linear-oblong perianth segments having the tips incurved and hooded. Sent by Mr. Nelson to his father's nursery at Rotherham. Flowers in July.—Kew. *Lilium Parryi*, Watson [t. 6650], a handsome S. Californian Lily, with stems 2—3 feet high, bearing whorls of eight or more narrow lanceolate leaves, and many-flowered racemes, with the flowers in whorls of 3—6 or more, three inches in diameter, golden yellow with minute purple spots near the base. *Haberlea rhodopensis*, Frivaldsky [t. 6651], a charming dwarf hardy perennial Gesneriad from Roumelia, described at p. 171. *Opuntia Davisii*, Engelmann [t. 6652], a curious small shrubby succulent, much branched, with cylindric-tuberculate spiny branches and pale bronzy-green flowers, 2½ inches across, having a peculiar metallic lustre. New Mexico.—Mr. Loder. *Celmisia spectabilis*, Hooker f. [t. 6653], a handsome New Zealand mountain Composite, with a woody rootstock, numerous lanceolate plaited leaves hairy on the ribs with silky hairs, and densely matted with buff wool beneath, the scapes numerous, longer than the leaves and terminating each in a flower bud 2 inches across of numerous white or pale lilac florets.—Veitch & Sons.

The GARDENERS' CHRONICLE (Sept. 23—Oct. 21) contains *Masdevallia erythrochate*, Rehb. f. (p. 392), a new Central American Saccolabiata allied to *M. Houtteana*, but larger, the leaves cuneate-ligulate a foot long, the peduncles four inches high with numerous sheaths, and bearing the large white and light yellow flowers which have long reddish-purple tails; the sepals covered inside with hairs, the upper one shorter.—F. Sander. *Curcuma siamtrana*, Miq. (p. 393), a showy stove plant, whose bright green elliptic leaves have dark violet petioles,

and which bears a spike six inches long, of orange red bracts with yellow flowers. From Sumatra.—Veitch & Sons. *Microstylis trilobulata*, Kurz (p. 393), an insignificant Orchid from the Andaman Islands, 6—12 inches high with a few elliptic-lanceolate leaves, and racemes of small dull brownish-purple flowers, having the sessile lip cordate at the base and three-lobed at the apex.—Lt.-Col. E. S. Berkeley. *Dendrobium bursigerum*, Lindl. (p. 424), a Philippine Island species allied to *D. secundum*, but having the yellow area of the lip more elongated. *Cirrhopetalum ornatissimum*, Rehb. f. (p. 424), a pretty species supposed to be Indian, with ovoid angular pseudobulbs, oblong-ligulate leaves, and a terminal umbel of straw-coloured flowers with purple longitudinal lines. *Senecio lagopus*, Raoul (p. 424), a New Zealand plant 6—12 inches high, with elliptic obtuse radical leaves, densely woolly beneath, and bright yellow radiate flower-heads about 1 inch across; suitable for rockwork. *Nepenthes Rafflesiana insignis*, Mast. (p. 425, fig. 69), a noble pitcher-plant, with robust cylindrical stems, bearing oblong leaves 1½ foot long, and remarkably handsome flask-shaped pitchers 9 inches long by 4 inches broad, green, heavily mottled with purplish brown spots and thickly beset with small stelliform hairs, the wings broad and sharply toothed, and the rim deeply and evenly ribbed and prolonged into a stalk supporting a large ovate-oblong lid; Borneo.—W. Bull. *Nepenthes Rafflesiana nigro-purpurea*, Mast. (p. 425, fig. 70), a self-coloured form, with bag-shaped purplish-brown pitchers, noticed fully at p. 171. *Houlletia chrysantha*, Lindl. et André (p. 437, fig. 73), a very handsome Orchid from New Grenada, with elongate ovate pseudobulbs, solitary narrow elliptic leaves, and pendulous peduncles, bearing 4—5 flowered racemes of flowers 1½ inch across, golden yellow spotted with blood red, the base of the lip having a blackish-red blotch covering the indistinct crest. See H. Wallisii *infra*.—Kew. *Dendrobium formosum sulphuratum*, Rehb. f. (p. 437), a variety in which the throat of the lip is clear sulphur yellow, instead of the usual orange colour.—Heath & Son. *Odontoglossum histrionicum bellum*, Rehb. f. (p. 437), a very fine variety with all the tints especially the yellow lighter than in the type; the anterior part of the lip is white, and the petals have a few long narrow chocolate blotches on their edges.—Heath & Son. *Cattleya Roezlii*, Rehb. f. (p. 457), a fine species of the *C. labiata* series, differing from *C. Mossiae* in the more slender stems, with usually two nearly equal joints, and 2—3 flowered scapes of flowers, very like those of *C. Warszewiczii*, but with two bright yellow eyes below the rich purple lip blade.—F. Sander. *Pleurothallis spectabilis*, Rehb. f. (p. 457), a curious little Orchid, with small spatulate leaves, and corymbs of small hyaline flowers with a dark olive-green lip.—J. O'Brien. *Cirrhopetalum delitescens*, Hance (p. 461), a little Chinese Orchid from Victoria Peak, Hong Kong, having small ovate compressed pseudobulbs an inch long, solitary oval oblong leaves, and three-flowered scapes bearing dark lurid purple flowers.—Kew. *Tanda Hookeriana*, Rehb. f. (p. 488), a grand Orchid from Borneo and Singapore, described at p. 155. *Angraecum bilobum Kirkii*, Rehb. f. (p. 488), a minor variety, with narrower divergently bifid leaves, and white flowers, having a cuspidate lip. Tropical Africa.—B. S. Williams. *Angraecum fuscum*, Rehb. f. (p. 488), a Madagascar Orchid, related to *A. bilobum*; with cuneate-oblong leaves, and lax racemes of many flowers, which have ochreous sepals, white petals, and an acuminate white lip with a long filiform flexuous brown spur.—Low & Co. *Cypripedium cardinale*, Rehb. f. (p. 488), a new hybrid between *C. Sedeni* and *C. Schlumii*, the flowers of which have longer upper sepals, acute

undulate straight petals, all these parts tinted with purple, and a glorious purple lip, with a white staminode.—Veitch & Sons. *Cypripedium grande*, Rehb. f. (p. 488), a hybrid raised between *C. Roezlii* and *C. caudatum*, a giant plant, with the habit of the latter, 1—3 flowered, the large flowers resembling those of *C. Hartwegii*, but with oblong-lanceolate sepals.—Veitch & Sons. *Cypripedium ciliare*, Rehb. f. (p. 488), a Philippine Island species, allied to *C. superbiens*, which it resembles in the leaves, while the hairs on the edges of the sepals and petals are much denser and more numerous, the petals themselves broad and short, the lip with a short claw, and a very broad short staminode; the colours are not noted.—Low & Co. *Houlletia Wallisii*, Lind. and Rehb. f. (p. 494), the corrected name of *H. chrysantha* noted above as being described in *G. C.*, 437, fig. 73. *Oncidium prætextum* Læanum, Rehb. f. (p. 494), a most remarkable form of this Brazilian species, in which the petals are replaced by organs like the lip, having the callosity of the lip at the base, “differing only from the genuine lip in being blotched on their yellow disk, as on the lip of *O. Forbesii* Borwickianum, instead of being spotless.”—W. Lee, Esq. *Phalanopsis antennifera*, Rehb. f. (p. 520), a species resembling *P. Esmeralda* in growth, but stronger, with leaves six inches long, and flower spikes over 2 feet, the flowers having the sepals and petals light rose, and the side lobes of the lip orange-red striped, the middle one pure amethyst.—B. S. Williams. *Saccolabium flexum*, Rehb. f. (p. 520), an interesting Orchid from New Guinea, which “has most probably scarlet flowers, in small racemes, not unlike those of *Dendrobium secundum*, but the flowers themselves must be compared to those of *S. ampullaceum*.”—Veitch & Sons. *Saccolabium calopterygum*, Rehb. f. (p. 520), a fine New Guinea Orchid, with panicles of flowers “much like those of *Vanda cœrulescens*”; they are said to be rich purple and probably white at the base of the sepals and petals.—Veitch & Sons. *Dendrobium vandiflorum*, a curious species, with racemes of white flowers; from New Guinea.—Veitch & Sons. *Dendrobium Macfarlanei*, Rehb. f. (p. 520), a fine species with handsome flowers, the rhomboid petals of which are much larger than the sepals, and the lip has a great purple blotch at the base of each side lobe; from New Guinea.—Veitch & Sons. *Dendrobium pleiostachyum*, Rehb. f. (p. 520), a Dendrobe with narrowed flexuous stems, with many short dense one-sided racemes of flowers apparently white; from New Guinea.—Veitch & Sons. *Cypripedium reticulatum*, Rehb. f. (p. 520), a remarkably distinct Lady’s Slipper from Ecuador, more fully described at p. 171. *Aërides Emeriei*, Rehb. f. (p. 525), a beautiful Indian Orchid, whose flowers, which grow in racemes, have a stripe of pink down each of the white sepals and petals; it is allied to *A. virens*, but lacks its fragrance.—Lt. Col. Berkeley. *Odontoglossum hystrix* Læanum, Burbidge (p. 526), one of the most distinct and beautiful of its race, resembling *O. crispum* in habit and mode of flowering, the flowers pale sulphur yellow, heavily blotched with cinnabar; probably “a native hybrid between *crispum* and *Lindleyanum*, or between *triumphans* and *hystrix*, which it resembles in form and size of flowers.”

The GARDEN (Sept. 23—Oct. 14) contains coloured plates of—*Cattleya citrina* [pl. 355], a fine variety flowered by Sir W. Marriott, Bt., Down House, Blandford. *Rose Alfred K. Williams* [pl. 356], one of the finest and most perfect and symmetrical in shape of all the H.P. crimson Roses; it was sent out by Schwartz in 1877. *Celsia cretica* [pl. 357], a fine old hardy or nearly hardy biennial, now rarely met with in gardens, but well deserving a place; it closely resembles the *Verbascums*, the erect stems

being covered in succession with the long yellow rotate flowers which have two reddish-brown blotches at the base of the upper segments. *Arctotis aureola* [pl. 358], a handsome Cape Composite, with irregularly pinnatifid cottony leaves, and large flower-heads made up of about a score of linear-ligulate florets an inch and a half in length; the stems are erect in habit with an inclination to become naked; it flowers in the greenhouse during the early part of the year; also known as *A. grandiflora*.

The GARTEN-ZEITUNG for October contains a capital illustration of *Lachenalia Nelsoni* [p. 421], the beautiful hybrid between *L. aurea* and *luteola* for which we are indebted to the late Rev. J. G. Nelson. There is also a description and figure of *Angræcum Eichlerianum*, Kränzlin [p. 434, fig. 192], a new species from Loango in S. W. Africa; it has a tall stem, distant unequal-sided elliptic leaves blunt at the apex, and large solitary helmet-shaped flowers, which have green oval-lanceolate acuminate sepals and petals, and a large white cuneate-obcordate lip, deeply emarginate with an apiculus, the spur extinguisher-shaped, about as long as the lateral sepals.

LA BELGIQUE HORTICOLE (June—July) contains figures of *Phytarrhiza monadelphæ*, E. Morren [t. 7], a dwarf-growing Bromeliad, from South America, with a rosulate tuft of numerous lanceolate channelled leaves of a coppery-brown hue, from the centre of which springs up the loose simple spike of small lilac flowers, whose stamens cohere by their short filaments.—Linden. *Kerchovea floribunda*, Jorissenne [t. 8], a rather pretty Marantaceous plant, of subshrubby habit, growing 3—4 feet high, with trichotomous or quadrichotomous stems, elliptic unequal-sided leaves having hairy sheathing petioles, and terminal branching cymes of small purplish blue flowers emerging from lanceolate rose-coloured bracts. Brazil.—Jacob-Makoy & Co.

L'ILLUSTRATION HORTICOLE (9—10 liv.) figures *Aërides japonicum*, Lind. and Rehb. f. [t. 461], a pretty dwarf-growing epiphyte, with oblong ligulate obtuse emarginate leaves, and drooping 6—8 flowered spikes of elegant flowers as large as those of *A. odoratum*, the dorsal sepal and petals white, the lateral sepals white with concentric bands of brownish-purple near the base, the lip spatulate, cochleate, white blotched heavily and spotted with amethyst purple; from Japan, as its name implies.—Linden. *New Sonerilas* [t. 462]; 1 *Comtesse de Flandre*, 4 *Madame Legrelle*, 5 *Madame Secretan*, varieties with dark green leaves variously spotted and blotched with white, the green preponderating, the red stalks in No. 1 and 5 being conspicuous; 2 *Madame Alfred Mame*, 3 *Madame Charles Heine*, 6 *Princesse Mathilde*, varieties with silvery grey leaves and green ribs more or less marked, the silvery hue greatly predominating; they are all dwarf stove herbs of ornamental character, produced by the cross fertilisation of *S. Hendersoni* and *S. margaritacea* in the establishment of M. Linden. *Ixora splendida*, Rodigas [t. 463], a woodcut figure of a fine orange-crimson variety. *Heliconia aureo-striata*, Hort. [t. 464], a fine Musaceous plant, of moderate stature, with large oval acuminate leaves of a bright green closely marked with orange stripes along the course of the veins, these stripes being sometimes broken up into lines of small blotches; the stalks, midribs, and margins of the leaves are prettily flushed with light red. Solomon Isles.—Veitch & Sons, W. Bull, and M. Linden. *Alicante Grape* [t. 465]; this plate is deferred. *Schismatoglottis longispatha*, Hort. [t. 466], a woodcut figure of a Bornean Arad, having stalked obliquely ovate leaves of considerable size (four inches long) of a bright green with a broad central band of silvery grey, the midrib itself being

green; it is remarkable for the length of its spathe, and for the little greenish-yellow spadix.

The GARTENFLORA (Sept.) contains coloured figures of *Saxifraga virginensis flore-pleno* [t. 1092], a pretty hardy perennial, of very distinct aspect, with rosulate oblong-cuneate radical leaves, and a branched flower stalk bearing at the ends of its branches tufts of little globular pure white flowers.—St. Petersburg Botanic Garden. *Lilium Parryi*, Watson [t. 1093], a fine Californian Lily, with yellow flowers here represented as being spotted.—Haage & Schmidt. *Echinocactus centeterius* Lehmann, and *E. centeterius major* [t. 1094], two interesting succulents.

The BULLETIN D'ARBORICULTURE (Aug.—Sept.) contains:—*Grape Chavoush*, a white grape which in this country has been found to be worthless.

The REVUE DE L'HORTICULTURE BELGE (Oct.) gives a superb illustration of *Psychotria cyanococca*, Seemann, a Rubiaceous plant with brilliant blue berries, introduced by the late Dr. Seemann from Chontales, in Nicaragua, to the nursery of Mr. W. Bull. It has elliptic acuminate toothed leaves, and dense drooping clusters of berries of an intense brilliant blue. The number also contains a woodcut view of Mr. Bull's Orchid Exhibition, as given at the time in the *Gardeners' Chronicle*.

The REVUE HORTICOLE (Oct. 1—16) figures *Azalea Rollissoni* under its synonym of *A. balsamiflora*; it is a Japanese variety of dwarf slender growth and produces freely its pretty double bright red flowers; it was originally introduced by the Messrs. Rollisson & Son, of Tooting. *Grevillea Thelemanniana splendens*, a very elegant Australian greenhouse shrub, with trifidly bipinnatifid leaves, and terminal oval spikes of bright crimson flowers.

The JOURNAL DES ROSES (Oct.) figures the H.P. *Rose Sidonie*, a vigorous growing variety, with large double delicate rosy-pink flowers, having a delicious odour. It was raised by M. Vibert in 1845.

In NEW COMMERCIAL PLANTS AND DRUGS, No. 6, we have an interesting example of a book made from wood converted into pulp by the Elman Patent Process; this part of the number is illustrated by six plates, printed in six colours, and will well repay careful perusal. The Second part is devoted to New Plants and Drugs, their cultivation and uses, and has a value of its own. Amongst the New Drugs noticed are the Papaw, Lycopodium, Carnauba, White Quebracho, Kava-Kava, Goa powder, Jaborandi, and Coca.

GARDEN GOSSIP.

RESPECTING the proposed PINK SHOW IN 1883, which for some months past has been on the tapis, Mr. Hibberd writes:—"The object I have in view is to revive an interest in the Pink as a florist's flower, and it seems for the present likely that this can best be accomplished in the first instance by an exhibition in London. What may be attempted subsequently must rest with the cultivators. It will be understood, of course, that my intention is simply to initiate a movement that may lead to something more than a mere exhibition, for I should hope to see the gardens of England made the richer for renewed attention to one of our oldest, sweetest, and most interesting flowers. The matter being now before the public, I think it proper to say that I will act as honorary secretary to the proposed exhibition, and in due time hand over my portfolio to any better man who may be appointed to take my place. In the meantime I will seek the counsel and help of growers of Pinks, and

secure from them as many subscriptions of 5s. each as will be likely to suffice for a respectable schedule and a few merely nominal expenses. That opinions are divided about the properties of Pinks, adds, I think, very much to the interest of the proposed exhibition. In a multitude of counsellors there is wisdom; let us then have many views and voices on what constitutes the Pink of perfection. As the place of the proposed Pink show has not been mentioned, I would propose that we take a lesson from our friends the exhibitors of Auriculas and Carnations. They have done well at South Kensington, which is now the proper centre of horticultural energies, and peculiarly accessible from all parts of the country. The last week in June will probably suit more growers than any other time, but an earlier date will not suit anybody." Those who wish to help forward this new movement on behalf of the Pink, should address themselves to Mr. Shirley Hibberd, 15, Brownwood Park, London, N.

— AT the recent successful INTERNATIONAL POTATO SHOW, the liberal prizes offered by the Crystal Palace Co. for 24 varieties of Potatoes in dishes of 9 each, brought up 13 competitors, and secured a grand array of the tubers, the great bulk of the collections being wonderfully good. The leading prize was won by Mr. W. Ellington, West Row Gardens, Soham, with fine medium-sized samples of the Queen of the Valley, Bresee's Purple, Carter's Eight-Weeks, International Kidney, Vicar of Laleham, Blanchard, Adirondack, Porter's Excelsior, Covent Garden Perfection, Schoolmaster, Matchless, White Emperor, Triumph, Early King, Reading Russet, Wiltshire Snowflake, Crampian, Rector of Woodstock, Mr. Bresee, Woodstock Kidney, Prize-taker, Pride of America, Fiftie's Annie, and Early Border.

— IN order to DESTROY WASPS, a correspondent of the *Times* recommends the use of pulverised "commercial cyanide of potassium," one or two table-spoonfuls of which, put into the entrance of the nest at any time of the day, if quietly done, does not in the least disturb the ingress of the insects, which readily enter, never to return, so that in twenty-four hours every individual is destroyed. It must be remembered that the cyanide is a potent poison, to be used only with the utmost care.

— MISS E. A. ORMEROD writes concerning the exceedingly destructive caterpillar of the WINTER MOTH (*Chimatobia brumata*), that the grubs frequent almost all our common deciduous fruit and forest trees, and will clear the soft part of the leaves and then finish off, as food gets scarcer, with everything eatable, including the buds; consequently they are exceptionally injurious. The moth has greyish-brown and ochrey fore wings, and the caterpillars are green or dingy, with whitish lines along the sides, and form a loop when they walk. These insects are somewhat in our power, from the females having such abortive wings that they are obliged to creep up the tree trunks to lay upon the branches. They appear in early winter—November and December—and from sundown to about ten in the evening may be seen at their work. Therefore, if in good time a number of haybands or bands of any rubbish were twisted up, and two men were sent with directions to soak these in anything preferred of the nature of tar—tar and cart-grease, tar and oil—or anything the moths could not cross, and to lay one of these bands round the stem of each tree, the

tree would be isolated. This remedy is one found to act practically, it is not expensive, and a couple of men would soon apply it to a very large number of trees. The tar should not touch the bark.

— **AT** the sale of the late MESSRS. OSBORN'S NURSERIES, which took place at the Mart, Tokenhouse Yard, on Oct. 5, the freehold estate at Fulham was purchased for the sum of £10,000 by Messrs. James Veitch & Sons, of Chelsea, who we understand intend to still maintain it as a nursery, principally for the cultivation of fruit-trees. The Hampton Nursery was sold for £1,500 to Mr. W. Lockyer, formerly traveller to the late Mr. R. A. Osborn. The Sunbury Nursery was bought in for £5,600, the reserve price not being reached.

— **WHAT** has been called the ZULU NUT, is the tuber of *Cyperus esculentus*, an instance, as one of our contemporaries observes, of the inconvenience of new, and especially of popular names, for who would be likely to recognise this *Cyperus* under the name Zulu Nut, seeing that it is not distinctively of Zulu origin, and certainly is not a nut? *Cyperus esculentus* and its properties have been known almost as long as anything botanical has been known, and under the name of *Amande de terre* the small roundish tubers are used as food in the South of Europe.

— **THE** HEAVIEST GOOSEBERRIES of the four colours, which have been brought forward at the gooseberry shows of the past summer, are the following:—*Red*: Bobby, 31 dwt. 17 gr.; *Yellow*: Leveller, 34 dwt. 2 gr.; *Green*: Stockwell, 30 dwt. 17 gr.; *White*: Fascination, 31 dwt. 4 gr.

— **AMONG** the novelties said to be in store for us, is a RED-BERRIED IVY, which M. Ed. André, who saw it growing in a nursery at Nice, describes as differing from the ivies ordinarily cultivated in foliage, but more particularly in colour of the berries, which are as red as those of the *Pyracantha*. If so, it will be a very ornamental addition to our winter evergreens.

— **THE** following account of Two NOBLE SILVER FIRS from the *Journal of Forestry*, occurs in the interesting account of the excursion of the Scottish Arboricultural Society to the woods of Loch Lomond and the Gareloch. In the policies of Roseneath House, one of the residences of his Grace the Duke of Argyll, the great attractions from an arboricultural point of view are the two celebrated Silver Firs planted here over 200 years ago. They stand about fifty yards apart, and have been wisely opened up and enclosed with a substantial fence. They have been called, in local tradition, Adam and Eve, and the genial parish minister suggests that this is because "they stand in all their glory, naked and not ashamed." Eve rises to a height of 124 feet, and the girth of stem is at one foot 28 feet, at three feet 22 feet 8 inches, and at five feet 21 feet 8 inches. Adam, as measured by the party, was found to be 130 feet high, at one foot 28 feet 10 inches in girth, at three feet 23 feet 4 inches, and at five feet 22 feet. The cubic contents of both trees were calculated at 2,500 feet of timber, as against a calculation of 1,300 cubic feet in 1833.

— **THE** CHAMBRE SYNDICATE DES HORTICULTEURS BELGES, of Gand, has resolved as follows:—"In order to give to the representatives of Horticultural Industry of all countries, the occasion to extend mutually their commercial relations and discuss their common interests, an International meeting of Horticulturists will take place at Ghent in April, 1883. The programme will be published in due time. As this meeting will coincide with the Great Quinquennial International Flower Show, organised by the Royal Agricultural and Botanical Society, interesting entertainments will be offered to the Congress members."—*Extract of Deliberation Register, July, 1882.*

In Memoriam.

— **MR.** ROBERT SIM, of the Sidecup Hill Nursery, Foot's Cray, Kent, died from accidentally falling into a water tank a few weeks since, at the age of 54. He was only son of the late Mr. R. Sim, founder of the Foot's Cray Nursery, an establishment long noted as one of the leading nurseries wherein the culture of Ferns was made a speciality. Mr. Sim's collection both of exotic and British Ferns was, some few years since, probably the best in the country, both as to extent and correctness of nomenclature; and the Fern Catalogues issued from Foot's Cray were specially accurate. From his youth up the younger Sim may be said to have dwelt in a paradise of Ferns, and it is no wonder, therefore, that his love for them was so intense. His many friends and correspondents will hear with deep sorrow of his comparatively early and unfortunate death.

— **GEORGE** H. K. THWAITES, Ph.D., F.R.S., died at Kandy, on September 11, in his 72nd year. In early life Dr. Thwaites made for himself a name as a microscopist by his researches into the structure and life history of the lower Cryptogams, at a time when cryptogamic botany was little studied in this country, and the value of his discoveries was by no means generally appreciated. In 1849 he accepted the post of Director of the Botanic Garden, Peradenyia, which he resigned a few years since, but while in this position he naturally took a prominent part in the introduction and successful culture of Cinchona in Ceylon, and thus contributed largely to the prosperity of the island which for so many years he made his home.

— **MR.** HENRY M'MILLAN, died September 12, aged 74 years. He was manager to Mr. Cattell, of Westerham, for thirty years, and was also for several years manager at the Combe Wood nurseries of Messrs. Veitch & Sons, but for the last sixteen years he had been in business on his own account at Kingston-on-Thames.

— **MR.** GEORGE YOUNG died at Saffron Waldon, on September 25, aged 85 years. He was gardener for 48 years to the Right Hon. Lord Braybrooke, of Audley End, and was highly esteemed by his employers, who liberally pensioned him off about eight years ago. Mr. Young was a good practical gardener of the old school, and highly respected in the profession. He was some years since in pretty constant attendance as a judge of roses at the Metropolitan Exhibitions.



CAMELLIA DON PEDRO.

[PLATE 575.]

WE are indebted to Mr. W. Bull, of Chelsea, for the opportunity of presenting a figure of this very beautiful new Camellia, which bears the name of DON PEDRO, and which is quite a recent acquisition.

The dark green leaves are remarkably short and broad, with an acuminate point, and the margin is strongly and distinctly serrated. The flowers are of full medium size, closely imbricated, the outer portion becoming neatly and symmetrically reflexed; the broad petals are smooth at the edge, with a peculiar and very pleasing colouring, the marginal portion being white, while the inner parts at the base of the petals are of a rosy-carmine, running outwards in lines from the base of the petals, but not reaching the outer half, which remains of a pure white; this pretty rosy tint is not very evident in our figure, owing to the close imbrication of the petals, but showing

up as it does from the inner depths of the flower it has a very pleasing effect. We think it will prove a very desirable introduction, and in the accompanying figure Mr. Macfarlane has well represented it in one of its phases. The basal colouring, it may be noted, is more evident in the freshly opened blossoms before many of the petals have become reflexed.

A note may here be added of another White Camellia of a meritorious character, which we saw at the same time and place. It is called *José Marquez Loureiro*, and we believe will take rank as one of the good White Camellias which are ever welcome, since it has broad bold foliage, which is an admirable foil to the flowers, and which is wanting in the fine old Double White. The flowers are above medium size, and very full, made up of broad smooth-edged petals, the outer of which are reflexed, while the central ones retain the concave form. The colour is a pure white.—T. MOORE.

THE PICOTEE BLOOM OF 1882.

AND of Picotees—what shall I say of Picotees!—my early love, and still hidden, as we hide much-beloved things, in the deep recesses of my heart. Well, my first thought and desire is to record my grateful satisfaction that now I am enabled to see my pets, under my own care, again in their beauty. It was not the least of my troubles at Clapham that this was denied to me, but now, thank God, a purer atmosphere has given to me here, a beauty of colour and development which there could not be attained. At the risk of being charged with egotism, a risk perhaps inseparable to such a paper from such a writer, I must say I never had finer flowers, nor ever saw finer, during my long floricultural life.

To begin with the heavy Red-edges, we had glorious examples of Brunette—though with this Mr. Douglas was far before me, Dr. Epps, exceedingly showy, and thought by many of my visitors the finest of the class, Countess of Wilton, John Smith, Mrs. Dodwell, Mrs. Wilson, Master Norman, Morna, and Peeress. In Medium-edges, Emily (Addis), Wm. Summers, and Winifred Esther, were fine; and

in Light-edges, though so limited in number, beautiful examples of Thomas William, Elsie Grace, and Clara, the latter effective in a high degree as a home stage flower. This class will have a grand addition this season in Mr. Simonite's Mrs. Gorton, a flower every admirer of the Picotee should possess.

In Purple-edges we have a wealth of variety. In the Broad-edges, so effective whether on the home stage or exhibition table, we have Muriel (Hewitt), a glorious flower of the highest excellence, distributed last year; Mrs. A. Chancellor (Turner), only surpassed by Muriel, a flower of exceeding beauty; and Medina, another most distinct flower, remarkable for its broad band of imperial purple. Leah, also in this class, is of great merit, but it is not so good a grower, and is too early as a rule for the exigencies of the exhibitor; but it is a fine and highly desirable variety. To these Alliance (Fellowes) should be added, though I have not been so successful with this variety as some of my brother cultivators. In the Narrow-edged heavies, Zerlina, Tinnie, and Lizzie Tomes were beautiful exceedingly, more beautiful than I ever remember to have

seen, and lovely beyond words to express. I have seen too much of the goodness of the Almighty in giving His creatures so much beauty, ever to approach even in thought the assumption that this beauty may not be surpassed, but I know what has been granted is so delightful that heart and mind never sate and contemplation never tires with the remembrance. It is a living memory, ever green and ever fresh.

In Medium-edged Purples, Alice undoubtedly occupies the first place, and well she fills it; but Cynthia, Baroness Burdett Coutts, and Fanny are also good, and deserving of wide cultivation. In the Light-edges there is so close a race for the leading place, and the competitors comprise respectively so much that is excellent, so much that is admirable, that I can only say I bracket six sorts as equal—viz., Ann Lord, Clara Penson, Mary, Minnie, Evelyn (Hewitt), and Her Majesty. There remain two others—the most delicate of light edges—Nymph (Lord), in the early season exquisite for its delicacy; and Titania (Gorton), clearly a seedling from Nymph, with even an added delicacy of tint, and exceeding lovely. Another variety which fills a place amongst my Purple-edges, but which I note Mr. Turner classes as a “fancy,” is Novelty (Matthews). It has a bizarred edge, rose on lilac, and draws admiration wherever seen. I regard it with very special favour as the possible pioneer of another class of Picotees, rich in its variety.

Rose-edged Picotees are universal favourites. Though with me and with most of the visitors I have had the honour from time to time to see, all are favourites, yet the Rose-edges, whether heavily edged or delicately margined only, are specially admired. In Broad-edges, Edith Dombrain and Royal Visit are worthy rivals—the colour being so sweetly effective—though Elise and Payne’s Purity are very little behind. In the narrower section we have lovely varieties in Fanny Helen, Lady Louisa, Mrs. Lord, Mrs. Nichols, Miss Lee, and Miss Horner. Esther Minnie, a seedling from, and which I observe the critics regard as an improvement on, Fanny Helen, was undoubtedly very beautiful, having more colour on the edge than its parent, a larger size, and a ground which, like that of Lady Louisa, is purity itself. Yet another variety

remains—the very queen of the class—Mrs. Payne (Fellowes), unrivalled for its lovely colour, form, and beautiful petal. In these respects it reminds me of Mrs. Barnard, the grand lightly-feathered rose of thirty years since, with this difference only, that Mrs. Payne has more colour on the edge, and therefore more attracts observation. Her beauty does not, however, diminish upon inspection, but grows and develops the more and the more minutely she is looked upon. Light-edges are not many, but they are very beautiful. The best I have grown are Daisy, Ethel, Julia, Miss Gorton, Miss Wood, and L’Elegant.

There yet remains one other class as to which I must say a few words—the Selfs or Fancies, which properly should have been noticed amongst the Carnations, to which they belong. Forty years since our floral fathers rejected these with rigid severity, if not with positive aversion. They had some reason for the action, though better information and improved practice has deprived it in these days of any force. Then the object desired was distinctness of variegation, and slight as was the general knowledge of the structure of flowers, enough was known to excite the fear that these self or parti-coloured flowers, lacking white grounds, might in some way depreciate the flakes and bizzarres sought. The danger undoubtedly exists, but the fertiliser no longer leaves to chance the work on which, simple as it is, so much depends. Parents are carefully selected, and wider and larger experience develop in natural course a broader and more catholic taste.

When prizes were first offered for these flowers by the Southern Section of the National Carnation and Picotee Society, a friend ominously asked, What will our northern brothers say? The answer has been given in the prizes they also offer, and the admiration the subjects when seen evoke.

One other word to bring this long epistle to a close. Twelve months since, from broken health, I was unable to attempt this annual task. I desire here humbly to acknowledge the goodness of God for my partially-restored health, and my deep sense of the kindness of friends and brothers shown to me in my prostrate condition.—E. S. DODWELL, *Stanley Road, Oxford.*

CYPRIPEDIUM SPICERIANUM.

OF all tropical Lady's Slippers this is one of the most distinct and charming. It is quite a gem in its way; the pure whiteness of the neatly rounded upper sepal with its central streak of claret colour is very pleasing. There is also some vivid

It is just now one of the choicest of all Orchids in bloom here, although by no means so gorgeous as is *Cattleya labiata* in flower beside it. We find that it enjoys a compost of loam, fibre, sphagnum, and crocks on a well-drained bottom, and like all other Cypri-

CYPRIPEDIUM SPICERIANUM. (From the *Gardeners' Chronicle*.)

claret contrasted with white on the staminode, and the crisped petals and neatly rounded pouch add to the charm of this dainty flower.

pedes it luxuriates in partial shade and copious moisture overhead when growing.—F. W. B., *College Botanic Garden, Dublin*.

THE ÆSCHYNANTHUS AS A WALL PLANT.

THE many fine species of *Æschynanthus* which were common in plant stoves some twenty or thirty years since, are now too seldom seen in cultivation; yet there are few things more strikingly beautiful. They are not exactly what may be called exhibition plants—that is, they do not quite adapt themselves to the habits required in, or

the conditions allotted to plants grown mainly for show purposes; and hence perhaps one of the reasons for their being neglected. They are not exactly decorative plants in the sense in which that term is generally used, that is to say, plants to be grown on in quantities to blossom and to die or be cast aside, or perhaps to furnish a supply of flowers for cutting;

but as a distinct type of vegetation, combining neatness of growth with brilliancy of inflorescence, they have few equals. They bear large tubular two-lipped Gesnera-like flowers, which are in most cases of the richest velvety-scarlet or crimson, and are more or less conspicuously blotched with black or yellow markings in the throat or on the inner surface of the limb.

As drooping basket plants to be suspended from the roof, or stood on elevated brackets, they serve to impart great variety to the aspect of a plant stove; but they are also most effective plants for covering damp walls which are too frequently otherwise unsightly, spreading over the surface like Ivy, and in a similar way clothing them with their neat ovate foliage pressed close against the surface in two ranks, the stems meanwhile rooting and clinging as they grow. We have frequently seen and admired them in positions of this kind, on the damp shady back walls of the Orchid-houses and plant-stoves at Trentham; and it is for the purpose of recommending their use in similar situations that we now call attention to this peculiar habit which they possess—a habit which might much oftener than it is be turned to good account.

There are several species which appear to be adapted for this mode of culture, such as *Æ. Boschianus*, *Lobbianus*, *javanicus*, *cordifolius*, *pulcher*, and *tricolor*: as far as we remember, however, it was on *Æ. Lobbianus* that our observations were made.—T. MOORE.

BULBS FOR POT CULTURE.

NOW that *Chionodoxa Lucilæ* is comparatively cheap it is well worth a trial in pots. I paid five shillings for my first bulb of it, and bloomed it in a small pot the first year. That bulb gave a 9-flowered spike, and the little beauty was almost worshipped when it opened its eyes to the sun. A dozen bulbs will not cost that sum now. Another beautiful bulb for cool frame or greenhouse culture in pots is the old Hooped Petticoat Daffodil. It is as old in our gardens as Queen Anne Plate, and is perhaps quite as beautiful. Potted now, five or six bulbs together in a 6-inch pot, it will be a treat to look at next March or April. *Lachenalias* of all sorts are charming, none

more so than *L. Nelsoni*, with its spires of apricot-coloured flowers. *Iris reticulata* is a perfect floral gem, and *I. persica* may well bear it company.

There are two Daffodils so noble and distinct as to merit especial mention under this head. These are *Narcissus maximus*, and *N. Horsfieldii*. Five or six bulbs in an 8-inch pot make a fine show, and their golden purity reminds one of Allamandas when they are in bloom. *Freesia Leichtlinii* is another dainty pot-bulb, as is also *Gladiolus Colvillei albus*, better known as "The Bride."

All the above succeed perfectly in a greenhouse temperature—good results indeed would attend their culture in a sunny window.—F. W. B.

REGISTER OF NOVELTIES.

NEW PLANTS.

BOMAREA WILLIAMSIÆ, *Masters* (*Gard. Chron.*, N. S., xviii., 553).—A greenhouse climbing plant, with tuberous roots, smooth angulate stems, lanceolate acute leaves, and compound umbellate cymes of rose-coloured flowers of great beauty; the flowers are funnel-shaped about two inches long, the outer segments oblong acute, with a few purplish spots inside, the inner ones spatulate rounded thickly dotted with purple; native of New Grenada near Mount Quindio, and collected by Mrs. Rosa Williams.—Shuttleworth, Carder, & Co.

CUPRESSUS LAWSONIANA SILVER QUEEN, *Hort.*—A free-growing compact-habited variety, of the character of *albo-spica*, but more diffusely variegated and of a brighter colour, the creamy white variegation being distributed over the whole plant, and maintaining its colour in winter, the variegation being moreover uniform through a series of plants; 1st-class Certificate Carlisle Int. Hort. Exhibition, 1877.—J. Dickson & Sons.

EUONYMUS RADICANS SILVER GEM, *Hort.*—An exceedingly beautiful and greatly improved variety of the variegated form of *E. radicans*, with broader leaves richly banded with silver, the white being clearer and better defined than in the old form. It is perfectly hardy, distinct in character, and for winter gardening invaluable.—J. Dickson & Sons.

LILIUM EXIMIUM HARRISII, *Hort.*—A remarkably free blooming variety of the well-known *L. eximium*. The plant grows about a foot and a half high. The flowers are as in the type trumpet-shaped, with the tips of the perianth segments recurved, measuring 6—7 inches in the length of the tube, and 7—9 inches across the mouth, of the purest white and very fragrant. It is said to delight in a high temperature, and to blossom from two to four times in succession, without rest.—Watkins & Simpson.

NERINE CAMI, *Hort.* (*Gard. Chron.*, N. S., xviii., 656).—A beautiful hybrid raised between *N. curvifolia* (pollen) and *N. undulata*, possessing the valuable property of producing its flowers at the same time as the leaves. The umbel consists of about ten flowers emerging from two pink bracts, the individual flowers being about one and a quarter inch long, bell-shaped, the segments linear-oblong acute, wavy at the edges, all rosy-pink, distinctly flushed with blue;

three of the stamens are longer than the other three.—Dr. Cam, Hereford.

ODONTOGLOSSUM CRISPUM (ALEXANDRÆ) **DORMANNIANUM**, *Hort.*—A finely-spotted variety of the plant usually called *O. Alexandræ*, with large white flowers, heavily barred and blotched with chestnut brown, the lip stained with yellow on the disk; it comes very close to the variety called *Chestertoni*; 1st-class Certificate R.H.S., Nov. 14.—C. Dorman, Esq.

ODONTOGLOSSUM CRISPUM (ALEXANDRÆ) **VIRGINALE**, *Williams.*—A very handsome variety remarkable for its large beautifully-formed flowers, its broad petals and its pure white colour, the lip only being marked with one or two small dots, and with yellow on the disk; 1st-class Certificate R.H.S., Nov. 14.—B. S. Williams.

ODONTOGLOSSUM CRISPUM (ALEXANDRÆ) **WILSONI**, *Hort.*—A splendid variety of the ever-charming *O. Alexandræ*, producing a fine spike, very large flowers of a very delicate blush with broad fringed petals, and having a few boldly-marked chocolate spots on the sepals and lip; one of *Chesterton's* importation; 1st-class Certificate R.H.S., Nov. 14.—Z. Stevens.

ODONTOGLOSSUM CRISPUM (ALEXANDRÆ), **THE DUCHESS**, *Hort.*—A remarkably beautiful variety of the large-flowered type, with broad sepals and petals of great substance and purity, the lip being peculiar in bearing one large bold irregular spot of chestnut brown; 1st-class Certificate R.H.S., Nov. 14.—Z. Stevens.

PLEOPELTIS FOSSA, *Moore (Gard. Chron., N. S., xviii., 586).*—A distinct and interesting evergreen stove fern, well adapted for basket culture. The fronds grow about a foot long, and spring from a slowly-creeping rhizome; they vary from linear-lanceolate to ovate, and have the edge sinuately toothed or lobed, the lobes longer or shorter according to the breadth of the frond, simple or bifid, or in the broadest fronds multifidly flabellate, deep green above, and having the compoundly anastomosing veins obscure. The sori are large roundish sunk in deep cavities which form a line of bosses on the upper surface on each side the cortex; 1st-class Certificate R.B.S., July 5; R.H.S., July 11, 1882.—Veitch & Sons.

SALVIA IANTHINA HOVEYI.—A very distinct and striking winter-blooming *Salvia* of the splendens type, having terminal spikes of somewhat pendent tubular two-lipped flowers, two inches long, and of a deep rich purple colour, the calyx being still more deeply coloured; obtained from the United States.—H. Cannell & Sons.

VANDA PARISHII MARRIOTTIANA, *Rehb. f. (Orch. Alb., t. 61).*—A remarkably beautiful *Vanda*, imported from Moulmein; it is dwarf and stout in habit, with ligulate-obtusate distichous leaves unequally bilobed at the apex; and erect spikes of several very handsome flowers of large size, the colour a rich bronzy-brown suffused with magenta, the sepals having a white exterior keel, the lip being of the richest magenta, and the column with the auricles of the lip white. It was first flowered by Sir W. H. Smith Marriott, Bart., and subsequently by H. J. Ross, Esq., Castagnolo, Italy.

WOODSIA SCOPULINA, *D. C. Eaton.*—A pretty dwarf growing fern, from the Rocky Mountains, where it is found in dense masses projecting from the crevices of the rocks; the fronds are 6—8 inches high, pinnate, lanceolate-oblong, the pinnæ numerous oblong-ovate with 5—8 pairs of short ovate crenulate or toothed lobes; the sori are submarginal with a delicate indusium deeply cleft into narrow segments. It belongs to a group of the rare genus *Woodsia* in which the stipes is not articulated.—W. & J. Birkenhead.

NEW FLOWERS.

CARNATIONS.—*Flirt* (Abercrombie), s.f., a bright and well-marked flower, smooth and of good quality. *Jessica* (Turner), r.f., a fine large flower, the petals and shape extra good, and the marking fine without spots, a good grower. *Jupiter* (Abercrombie), s.f., a fine large flower, smooth and well marked. *Mrs. George Hawtry* (Turner), a bright yellow self, and an acquisition to the class of tree or perpetual varieties; Certificate of merit from R.B.S. *Mrs. Maclaren* (Fitch), another of the tree class, a crimson bizarre, large smooth and finely marked; Certificate of merit from R.B.S.

CHRYSANTHEMUMS.—*Crimson King* (reflexed), a very pretty and distinct variety with compact flower-heads, having the florets comparatively short, flat, of a very deep crimson red colour; 1st-class Certificate R.H.S., Nov. 14.—Dixon & Co. *F. A. Davis* (Japanese), a novelty with flower-heads of a rich deep maroon-crimson, the florets narrow with revolute margins; 1st-class Certificate R.H.S., Nov. 14.—Jackson & Son. *Lord Wolseley* (incurved), a sport from Prince Alfred, which it resembles in habit, but



COOLING'S LEVIATHAN COS LETTUCE (see below).

the flower-heads are larger and of greater substance, the colour is a bright reddish chestnut with amber tips; obtained by Mr. Orchard, gardener to J. Galsworthy, Esq., Coombe Leigh, Kingston; 1st-class Certificate R.H.S., Nov. 14.—Cannell & Sons. *M. Desbreaux* (Japanese), a very distinct and handsome variety with large full flower-heads of a rich orange-red, the florets narrow with revolute margins; 1st-class Certificate R.H.S., Nov. 14.—Jackson & Son. *Madame Brun* (Japanese), a variety with flower-heads of medium size and fine quality, the colour a soft rosy-peach; 1st-class Certificate R.H.S., Nov. 14.—Jackson & Son.

NEW VEGETABLES.

LETTUCE, *Cooling's Leviathan Cos.*—The merit of this variety as a large and long-standing variety is well attested. It is remarkable for its broad crisp foliage, robust constitution, and extreme hardiness, qualities which will give it an especial value as a winter and spring lettuce, so that it is considered quite an acquisition in its way.—G. Cooling & Son.

PEA, *Sharpe's Early Paragon.*—A blue wrinkled marrow, 3—4 ft. high, producing pods freely, 2—3

together, large broad and thick-backed, containing 12—14 immense peas of fine flavour. It is very hardy, and the earliest of the large wrinkled marrows, coming in with William I.; raised by Mr. Culverwell, Thorpeperrow.—C. Sharpe & Co.

RHUBARB.—*Kershaw's Paragon*, a remarkably early and prolific variety, which, it is said, never seeds. The leaves are small, so that it bunches well. It is an enormous cropper, the stalks being very abundant, and of a beautiful bright-red colour; and the flavour is excellent. In mild seasons it is ready to pull in February.—C. Kershaw. *Ruby*, a new forcing variety, which has received a high character from Mr. Knight, of Greenlands. Its qualities as regards earliness, productiveness, and thorough goodness are, he says, exceptional and astonishing. The colour of the stalks is an intense red throughout their length and breadth, even in the early forced condition, and the flavour is everything that can be desired.

NEW PUBLICATIONS.

The BOTANICAL MAGAZINE. At p. 173 for *Albnea* read *Albuca*. The number for November contains:—*Encephalartos villosus*, Lemaire [t. 6654], a fine Natal Cycad, with a short woolly trunk, and bold pinnate leaves 5 feet long, of 60—90 pairs of linear lanceolate leaflets, with spiny apex and teeth, the lower ones reduced to digitate or single spines; the male cones are cylindrical, pale yellow, the females ovoid-cylindrical, greenish orange. *E. nobilis* is a variety.—Kew. *Agave univitta*, Haworth [t. 6655], a pretty Mexican succulent, in which the pungent green leaves, which grow in rosettes of 50 or more, have a pale stripe down the centre, and the pale green flowers grow in a close cylindrical spike 7—8 feet high.—Kew. *Utricularia Endresii*, Rehb. f., a pretty little semi-epiphytal Lentibulariaceae perennial from Costa Rica, with creeping rhizomes, deciduous lanceolate leaves, and erect scapes supporting 4—5 large spurred pale lilac Orchid-like flowers, beautifully ciliate; requires a cool orchid-house.—Kew. *Ficus stipulata*, Thunb. [t. 6657], the little creeping *Ficus* better known by its garden name *F. repens*, which so freely clothes the back walls of hothouses; the fruiting state is here figured, with oblong triple-nerved leaves 3 inches long, and stipitate pyriform or top-shaped fruit 2—3 inches long from the leaf axils; native of China and Japan; grown at Kylemore Castle, Galway. *Huernia oculata*, Hook. f. [t. 6658], a curious succulent from Dammara Land, related to *Stapelia*; it has 5-angled spinosely-dentate teeth, and cup-shaped flowers, of which the limb is deep violet-purple, and the throat white.—Kew.

The ORCHID ALBUM (Parts 14—16) contains—*Ada aurantiaca*, Lindl. [t. 53], a dwarf New Grenadan species, with bright cinnabar-red half-closed flowers, in drooping spikes.—B. S. Williams. *Cælogyne cristata alba*, Moore [t. 54], a pure white variety of this charming *Cælogyne*, called also *C. c. hololeuca*, which is one of the best for decorative uses.—W. Bull. *Scuticaria Steelii*, Lindl. [t. 55], a singular plant from British Guiana, with drooping rush-like leaves, and short radical spikes of large fragrant yellow flowers blotched with deep reddish-brown; flowered by W. McDonald, Esq., Woodlands, Perth. *Saccolabium giganteum*, Lindl. [t. 56], the *Vanda densiflora* of some, a noble plant, with blunt broadly lorate leaves, and dense drooping racemes of white flowers freely spotted with amethyst, and having a delicious fragrance; Burmah.—B. S. Williams. *Pescatoria Lehmanni*, Rehb. f. [t. 57], a fine and distinct species from Ecuador, stemless, with lorate-lanceolate leaves, and large showy flowers on scapes much shorter than the leaves, white tipped with purple and marked with purple lines, the lip

deep mauve-purple bristling with papillæ, and with a ruff of chestnut brown at the base.—Vervæet & Co. *Odontoglossum triumphans*, Rehb. f. [t. 58], a beautiful New Grenadan species, with ovate-oblong pseudobulbs, oblong-lanceolate leaves, and racemes of large golden-yellow flowers, handsomely and thickly transverse blotched with rich brownish crimson.—E. Wright, Esq., Gravelly Hall, Birmingham. *Vanda Roxburghii*, R. Br. [t. 59], an Indian epiphyte with two-ranked ligulate obliquely-tridentate leaves, and erect racemes of pretty pale-green chequered flowers having a violet purple lip.—W. Lee, Esq., Leatherhead. *Lælia Perrinii*, Lindl. [t. 60], an old Brazilian species of great beauty, the flowers large of a pale rosy tint, with the lip intense velvety purple-crimson.—B. S. Williams. *Vanda Parishii Marriottiana*, Rehb. f. [t. 61], a dwarf stout-growing plant from Moulmein, with broad blunt distichous leaves, and erect spikes of very handsome bronzy-brown flowers richly flushed with magenta.—H. J. Ross, Esq., Castagnolo. *Masdevallia ignea*, Rehb. f. [t. 62], a tufted-growing cool-house Orchid, with evergreen erect elliptic-oblong leaves narrowed into a long petiole, and tall scapes bearing each a handsome flower of a vivid cinnabar-red marked by thin crimson lines, the narrow upper sepal bent down between the two broader lateral ones; New Grenada.—C. Dorman, Esq., Lawrie Park, Sydenham. *Cælogyne pandurata*, Lindl. [t. 63], from Borneo, a remarkable epiphyte with large compressed oblong ovate pseudobulbs, broadly lanceolate leaves, and long drooping spikes of numerous large pale-green flowers which have the lip marked with blackish veins and warted crests; flowered by Baron Schröder, The Dell, Staines. *Odontoglossum Roezlii*, Rehb. f. [t. 64], a charming epiphyte from Colombia, with narrowly ovate compressed pseudobulbs, linear-lanceolate leaves, and short scapes bearing 3—6 large flatly expanded white flowers, of which the two petals have a purple spot at the base, and the broad lip bears a yellow disk and keels.—D. Todd, Esq., Eastwood Park, Glasgow.

ICONOGRAPHY OF INDIAN AZALEAS (No. 12) contains figures of the following varieties:—*Bignoniæflora plena* [t. 34], a fine semidouble variety of a pure deep rose colour, raised by Mr. C. Schulz, but to which the name of *begoniæflora* would have seemed more appropriate. *Königia Cleopatra* [t. 35], another of Mr. C. Schulz's varieties, with large white flowers striped with carmine rose. *Heinrich Heine* [t. 36], which has been regarded as the best of the violet-coloured sorts; its flowers are slightly semidouble, of fine form, and of a beautiful deep violet with metallic reflections. This also is a seedling raised by Mr. C. Schulz.

The GARDENERS' CHRONICLE (Oct. 28—Nov. 18) contains notes on the following novelties:—*Masdevallia platyglossa*, Rehb. f. (p. 552), a dwarf tufted plant with cuneate-ligulate three-nerved leaves, and small light yellowish flowers with short tails, and a broad warted lip.—Sir T. Lawrence, Bart. *Cypripedium macropterum*, Rehb. f. (p. 552), a fine new hybrid raised between *C. Lowii* and *C. superbium*; the scape is three-flowered; the sepals light green with the nerves sepia brown at the base; the long petals dilated from the cuneate semi-sagittate base, pale ochre colour with blackish purple spots, mauve purple in front, hairy on the upper edge; the lip ochre-brown beneath, resembling that of *C. Lowii*.—Veitch & Sons. *Odontoglossum brachypterum*, Rehb. f. (p. 552), a New Grenada species near *O. Kalbreyeri* and *O. Horsmanni*; the sepals and petals broadly ligulate, light yellow with a few cinnamon blotches, the lip pandurate emarginate, light yellow with a long cinnamon blotch on the disk in front of the callus of five parallel keels; it has narrow leaves.—Veitch & Sons. *Dendrobium linguella*, Rehb. f. (p.

552), an elegant small flowered species in the way of *D. aduncum*, with rosy flowers, the front part of the lip yellow; Malayan Archipelago.—Veitch & Sons. *Dendrobium leucolophotum*, Rehb. f. (p. 552), a Malayan Dendrobe allied to *D. barbatulum*, with stout cylindrical polyphyllous stem, oblong ligulate acuminate leaves, and very long racemes of fine large white flowers with a trifid lip.—Veitch & Sons. *Bomarea Williamsæ*, Mast. (p. 553), a fine species, with long rose-coloured flowers of great beauty; see p. 180. *Aërides Emericii*, Rehb. f. (p. 586), an Indian species related to *A. virens*, having similar flowers perhaps a little smaller, but the leaves are longer and narrower; the sepals and petals are white with a central purple-lilac stripe, the lip white with the middle lobe purple-lilac, the inner part of the spur freckled with the same colour; it differs in having an ascendent adhering lamella under the lip, forming a kind of pouch in the spur, whereas in *A. virens* there are two descending teeth in the same place.—Col. Berkeley. *Cattleya Whitei*, Hort. Low (p. 586), a fine new *Cattleya* found growing on trees with *C. labiata* and *C. Schilleriana*, and supposed to be a natural hybrid. It has the pseudobulbs and foliage of *C. labiata*, a 2-flowered peduncle, and pale rosy-lilac flowers, the petals broader than the sepals and undulate, the throat of the lip orange with purple lines, the anterior part rich magenta with darker veins, and a very narrow white margin.—H. Gaskell, Esq. *Phalaenopsis Reichenbachiana*, Rehb. f. and Sander (p. 586), a new species from the far east of tropical Asia, allied to *P. pallens*. The roots are stout, grey; the leaves keeled, the peduncle bearing 10—25 flowers equal to those of a fine *P. sumatrana*, the sepals and petals shining whitish-green with brown blotches and bars, the lip with orange and white side lobes, and a central lobe of mauve blue, and the column white and lilac.—F. Sander. *Eria rhodoptera*, Rehb. f. (p. 586), an epiphyte with cylindrical sulcate stems bearing at top two ligulate acute leaves, and racemes of pallid ochre flowers with the petals and side lobes of the lip purple.—E. G. Henderson & Son. *Pleopeltis fossa*, Moore (p. 586), an interesting Javanese evergreen fern, of dwarf habit with leathery recurved linear-lanceolate or ovate fronds, having the margin sinuately toothed, or cut into longer or shorter simple or bifid lobes, those on the broader fronds becoming multifidly flabellate; the sori form bosses on the upper side.—Veitch & Sons. *Odontoglossum mulus pallens*, Rehb. f. (p. 590), the plant noticed at p. 174 as *O. hystrix* Lœcanum, according to Prof. Reichenbach. *Woodsia scopulina*, Eaton (p. 616), a pretty dwarf N. American fern, with elegantly cut fronds 6—8 inches high, pinnate-pinnatifid, and having submarginal sori; extends from Oregon to California.—W. & J. Birkenhead. *Comparettia macroplectron*, Rehb. f. and Triana (p. 616), is again noticed as having produced with Baron Hruby and Sir Trevor Lawrence a fine paniculate inflorescence which must add greatly to its charms; it appears to differ in the coloration of the spur. *Odontoglossum mulus Holfordianum*, Rehb. f. (p. 616), an unusually fine variety, with whitish flowers, the sepals and petals marked with deep purple brown, and the large fiddle-shaped lip with a light ochre-coloured disk having a large pandurate transverse purple spot before the basilar callus in the front part of the disk, a similar smaller spot on each side of the middle part, and on each side a radiating spot on the base.—R. S. Holford, Esq. *Stapelia namaquensis tridentata*, N. E. Brown (p. 648), a greenhouse succulent from Namaqua land, with short thick procumbent quadrangular toothed stems, which are striped and mottled with purple, the flowers 3 inches across, very rugose, pale greenish-yellow with irregular dark purple-brown marks.—Kew. *Davallia tenuifolia Veitchiana*, Moore (p. 648), a much divided plummy form of this

elegant species, brought by Dr. Veitch from China; certificated by R.B.S. and R.H.S.—Veitch & Sons. *Pernettya floribunda*, Hort. (p. 649, fig. 113), a handsome hardy evergreen shrub, with ovate leaves and pitcher-shaped white flowers, smaller than in *P. mucronata*, the flowers succeeded by handsome crimson berries of considerable size.—F. & A. Dickson & Sons.

HARDY PHLOXES.

IN the light gravelly soil of our garden at Loxford Hall, the rose does not succeed so well as we should like, and many blanks are formed in the beds during the season. A few years ago I tried the plan of filling these blanks with Phloxes, and have had no reason to regret doing so. The cultural conditions required by the rose are the same as the Phlox delights in—viz., a rich soil, and mulching over the surface. Our rose beds have indeed been quite a blaze of beauty with the gorgeous spikes of phloxes, and the air was laden with the perfume of their flowers. The Phloxes are in flower as soon as the last roses are over, and have to be cut before the September bloom of the roses comes on.

The Phlox is one of the very best plants in existence for making a show in the herbaceous border; and, further, it is very valuable when grown in pots to help to make the greenhouse or conservatory gay in its season. It requires as little attention as any flower grown in our gardens; indeed, the Phlox is too easily grown, and people will not be at the trouble to give it the small amount of attention it needs. The plants are too often put out in the borders, and left in the same place for years without any attention; the result being that they dwindle yearly until the spikes are not a fourth the size they ought to be.

To grow the Phlox well, young plants must be raised each or every second year from cuttings, and the best time to put them in is about the month of March. At that time the shoots on the old plant will have grown a few inches; they should be thinned out and put into small pots, one cutting in the centre of each. They form roots very readily if they can be plunged in a hot-bed. When the plants are well rooted, and inured to the open air, they may either be planted out in rich, deeply worked soil, or be potted into 5-inch or 6-inch pots; they will most likely produce each a good spike the first year, but they will flower strongest the second season. After three

years' blooming throw them away. They may be propagated by dividing the plants, but this is a clumsy method, not to be recommended.

A very satisfactory way to get a good display is by raising seedlings. Sow the seeds on a hot-bed the first week in March. The young plants will soon be up and ready to prick out, and by growing them on under glass for a week or two, and planting out when the young plants are about 6 inches high, they will flower strongly the first season. If the seeds are saved from the best varieties there will not be a bad one amongst them, but it is necessary to flower hundreds before you can be sure of any that will be an advance on existing sorts. Plant in beds a foot apart the first year, and two feet the second.—J. DOUGLAS, *Loxford Hall, Ilford*.

FORCING INDIAN AZALEAS.

I WILL suppose the grower who wishes to produce early flowers to be in the possession of healthy young plants suited to his requirements, and of the right sorts for this special work. The plants need not be large to begin with, say three years grafted, and growing in 5- or 6-inch pots. Plants of this age will have a sprinkling of flower-buds ready to open in March, which month, by the way, we will suppose ourselves to have arrived at. They should be placed in a moist temperature of 65°, where they will soon open their buds. If flowers are in great request I would allow them to flower, but would cut them as little as possible. I would prefer, however, to nip off the flower-buds, and concentrate the energies of the plant on the produce for the following winter.

Supposing them to be permitted to remain in heat they should be encouraged to grow vigorously by every art that can be brought to bear upon them. The syringe should be kept at work morning and evening, and they should be watered with weak guano-water, or the surface of the pots sprinkled over with a pinch of Standen's manure, or other preparation. As they are not intended to be shifted, such a stimulative regimen will be of use to prepare them for the debilitating process of forcing, for, depend upon it, however carefully we conduct this work of forcing, it impairs the

strength of plants such as those we are now considering very much, and the art of the grower will consist in averting this as much as possible. If any shoot threatens to grow beyond the general outline it should be pinched, but this pinching should be indulged in but sparingly, nor prolonged beyond the first week in May, else the result will be disappointing. The drainage must be kept right, and any green matter growing on the surface of the ball picked off; but, above all, the water must penetrate through it evenly and thoroughly. The plants should be kept fully exposed to the sun on all sides, and towards midsummer removed to a cooler temperature, say the front stage of a greenhouse or an airy pit. The pots will be quite full of the most delicate roots, in fact, pot-bound, and to preserve their activity to the full, it will be necessary to protect them from the action of the sun. I place the pots at this stage in empty pots a size larger than those in which they are growing. This cool jacket will benefit the plants in more ways than one: it will protect the delicate fibres, whose welfare we have at heart, from the enervating influence of excessive evaporation, which must take place with pot-bound plants fully exposed to the rays of the sun; and it will save them from the fluctuations of temperature which this same evaporation and its consequent heavy waterings will entail; which evils, if not obviated by some means or other, will assuredly lead to more frequent visits from their insect enemies than will be conducive to their well-being.

An idea is or used to be prevalent that Azaleas and such plants, in process of maturation, should receive a reduced supply of water at the roots, the more surely to attain the object in view. I have been under this delusion myself at one time, and its victim as well, but happily I have come to see the evil of my ways. The best and earliest Azaleas I am able to produce are growing all the summer in an old greenhouse, where they bask in the summer's sun, and breathe the freest of fresh air night and day, the pots protected as I have described, and copiously supplied with water.

We will now suppose ourselves to have arrived at the middle of September, with a batch of plants, hard as ebony, having buds palpable to the touch, if not to the eye. Those



Macmillan & Co.

Charm. Str. Bant. Jent.

· Currant Black Champion.

who require the better class of flowers to work up with the regular supplies available at this season must now see to their first crop of Azaleas being forthcoming when they are wanted. The stock of plants must be carefully looked over, and the sorts most easily excited, and with the most prominent buds, selected and placed in a structure where they will receive an airy temperature of 65° or thereabouts, being set as near the glass as it is possible to place them, so that a ray of light will not be lost to them. Here they will slowly and surely open their buds. In direct proportion to the perfecting of the process of ripening in course of the summer, will be the ease or difficulty with which they will force. And as with the opening of the buds, so does the relative size, and substance and colouring, depend on the same beneficial influence. The cry of the dying philosopher, "Light!—more light!" was never more devoutly uttered, nor more full of meaning, than when hanging on the lips of the anxious and careful Azalea forcer.—A. MACKENZIE, *Warriston Nursery, Edinburgh*. (Abstracted from a paper read before the *Scottish Horticultural Association*.)

CURRANT BLACK CHAMPION.

[PLATE 576.]

THIS is doubtless the finest variety of Black Currant yet introduced. It was obtained by W. H. Dunnett, Esq., Stour House, Dedham, and was awarded a 1st-class Certificate by the Fruit Committee of the Royal Horticultural Society when exhibited before that body by Messrs. Carter & Co., of High Holborn, on August 9th, 1881, the opinion pronounced being that it was remarkably prolific, and that it bore very large bunches and unusually large richly-flavoured berries, of a shining black colour. We had intended to figure it last year, but somehow the specimens miscarried. Our plate is therefore from the fruit of the present season, and thus affords evidence from a second crop that its fine appearance was not the accident of one specially favourable season, but that its good qualities are permanent under good cultivation. Mr. Macfarlane's drawing here given, and which is very faithful, has been in great part copied in the woodcut issued with Messrs. Carter's

Autumn Catalogue, and repeated in the *Journal of Horticulture*, 3 ser., v., 203.

The profuse bearing habit of this Currant is one of its most remarkable features, while many of the berries are so large as to be taken for medium-sized grapes, and though the bunches are very long, the berries ripen simultaneously. The flavour is particularly luscious and delicate. "It is the longest and latest hanging variety in cultivation, good fruit being last year gathered the last week in September, of which a dish was exhibited on September 9th." The tree is robust in habit, bears pruning without prejudice, and stands drought well. Taking all these qualities into account, it would seem that it may be fairly pronounced to be the finest of all the varieties of Black Currant to be found in our gardens, and one which will repay high cultivation, being especially valuable to growers for market by reason of its extraordinary fruitfulness.—M.

A FEW WORDS ABOUT ROSES.

THOUGH the season has been cold and variable, the Roses here have, on the whole, done fairly well. Late buds have been plentiful and good, and many of them have opened nicely on mild days. *Queen of Bedders* has been very fine; it is a good useful Rose, a good grower, and a most profuse bloomer; it will be grown very largely when it becomes better known. *Géant des Batailles* is a good useful Rose for furnishing a supply of nice buds late in the season; in hot weather the buds soon open out and spoil, but in September and October they are more lasting, and as they are produced plentifully, they are valuable. *Gloire de Dijon* is a well-known Rose, and one that is largely grown, its buds being in great request. With a plant or two against a wall, and a few standards in the open borders, buds can be had plentifully from the beginning of April till the end of October. Standards of this variety require a little management. If left alone they are apt to produce two or three shoots that will grow to five or six feet in length, and produce only one or two buds at the ends. Instead, therefore, of leaving these shoots to grow to this length, they should be stopped when about a foot long, when they will soon break, and throw out two or three young shoots each,

and these shoots should also be stopped when about a foot long, and they will break and each throw out two or three additional shoots; these last should not be topped unless in the case of a chance one that is growing too robust, when it should have its point removed. During September and October each of these shoots will produce one or more buds each. Standards that are kept stopped in this way are fine objects in the autumn, being covered with buds. When pruning in spring the shoots should be well thinned, otherwise the heads will get too crowded. *Souvenir de la Malmaison* is another fine Rose, and is very useful for furnishing nice buds.—M. SAUL, *Stourton Castle*.

GARDEN GOSSIP.

SEVERAL of the FLORISTS' SOCIETIES held their Annual Meeting at South Kensington, on the 14th ult., with the following results:—

National Auricula and National Carnation and Picotee Societies (Southern Section), John T. D. Llewelyn, Esq., in the chair. The United Committee reported "a continued and an increasing development in the operations and influence of the Societies," the exhibitions having brought forward a larger number of growers of the plants, whilst the interest of the general public, "keen from the first," had been largely extended. The balance-sheets showed for the Auricula an income of £91 0s. 10d., and an expenditure of £81 2s. 6d., leaving a balance in the Treasurer's hands of £9 18s. 4d.; for the Carnation and Picotee—receipts, £154 6s. 8d.; expenditure, £129 3s. 6d., leaving £25 3s. 2d. in the Treasurer's hands. The larger receipts and expenditure of the Carnation and Picotee Society were due to the supplementary exhibition held at Oxford on August 2, for which special contributions were made. The report of the committee was unanimously adopted, and with the balance-sheet ordered to be printed for distribution to the subscribers. The President, Vice-President, Committee, and Honorary Secretaries were re-elected. The schedules of prizes, slightly varied from those of 1882, were passed, and the dates of exhibition fixed for April 24, and July 24, 1883.

Pelargonium Society, Thomas Moore, Esq., in the chair. The report and balance-sheet were approved. The Treasurer reported a fair balance in hand, but it will require some augmentation of the fund to keep the schedule up to its present standard. The prizes offered for hybrids of *Geranium pratense* and *Pelargonium oblongatum* will be repeated in the schedule adopted, which is very slightly varied from that of last year. The exhibition for 1883 is fixed for June 26.

— THE Report of the EDINBURGH INTERNATIONAL SHOW, held recently under the auspices of the Royal Caledonian Horticultural Society, shows that the sum taken at the gates during the two days of the show amounted to £1,106 11s., representing admission money for

26,250 persons. It was estimated that, including members' tickets, the number of persons who passed the gates during the two days was 30,760. The total receipts in connection with the show amounted to £1,500 7s., including a sum of £393 16s. received as subscriptions. The total expenses incurred, including rent of the Waverley Market, advertising, judges' expenses, &c., was £551 7s. 10d., and the amount of prizes £800 1s. 6d., making the total payments £1,351 9s. 4d. The receipts of the International Show of 1875 amounted to £1,029, when there was a loss to the Society of £89, whereas on this occasion it was estimated that there would be a probable surplus, after meeting all contingencies, of about £100.

— THE PROPOSED PINK SHOW is abandoned for the present, since there appears to be no reasonable prospect of a satisfactory competition, the cultivators of the flowers being so few in number and so widely separated. The proposal has, however, stimulated many to enter on the cultivation of Pinks, and may prepare the way for a show in 1884.

— THE Committee of the VAN HOUTTE MEMORIAL PRIZE FUND met on the 14th ult., when it was decided to offer at the approaching Quinquennial Exhibition at Ghent, for competition among Belgian exhibitors only, two prizes consisting of works of art each of about the value of £12, one for Stove and Greenhouse Plants in flower remarkable for fine cultivation (Orchids excepted); the other for eight Varieties of *Imantophyllum* in flower.

— THE WHITE CLOVE CARNATION VIRGO, was raised by the late Mr. John Fletcher, of North Bierley, near Bradford, in 1878, and first flowered in August, 1879, according to a statement in the *Journal of Horticulture*, by Mr. G. Rudd, who adds that Mr. Fletcher partially distributed it to a few friends in the autumn of that year, and in 1880 sold the surplus plants of it along with other varieties to Messrs. James Dickson & Son, of Chester, who have been exhibiting it this season under the name of *Duchess of Westminster*. The original plant is still in existence. The flowers are said to be beautifully shaped, not too full, perfectly smooth, remarkably sweet, and of the purest white; it is a strong grower, very floriferous, and given to throw up autumn spindles, which frequently prolong the blooming season until Christmas.

— To keep off the POTATO DISEASE, M. Jensen, of Neuilly, recommends three things: 1, "protective moulding," which will secure the crop to such a degree that, as a rule, you only find a trace of disease on lifting; 2, "protective lifting," or late lifting, which is to lift two or three weeks after the complete decay of the leaves, so that the tubers may not be exposed to the millions of spores on the green potato shaws; and 3, "protective storing," which means burying the tubers in dry sand or dry earth, the sand being useable year after year without risk. By adopting this protective system, and taking care that it is well carried out, as explained in a pamphlet by M. Jensen, that gentleman maintains that the potato-grower will be master of the disease instead of being mastered by it, as he will be so long as he adheres to the old customs.

— THE production of GRAPES FROM THE OLD WOOD of a Vine is to say the least unusual.

An instance of this phenomenon is, however, figured and described in a recent number of the *Revue Horticole* (1882, 430, fig. 23). In this case, wherein Grapes were produced, without either leaves or tendrils, direct from the old wood, it appears that the greater portion of the wood was killed by frost, but that one portion remained alive, and from this portion the berries were developed.

— MR. WOLLEY DOD, writing recently of *CAMPANULA HENDERSONI* in the *Gardeners' Chronicle* (p. 502), remarks that it seems to be a hybrid, which, without knowing its history, he suspects is the offspring of *C. carpatia* and *C. pyramidalis*, as it imitates the latter both in the shape of the flower and of the leaf. *C. Hendersoni* is one of the best of its genus for garden decoration—the good clear blue of the flowers, the profusion in which they are produced, and their long duration making it very ornamental. It is, however, easily lost, the whole plant often dying after flowering, and not being a very easy plant to divide.

— AMONG NEW SORTS OF POTATOS at the International Show, *Reading Russet* took the lead, taking first, second, and fourth prizes in the class for novelties. It is a beautiful pale round red, and was splendidly shown by Mr. Miller, who took the first prize. *Reading Russet* was originally called by its raiser, Mr. Fenn, *Berkshire Rose*, and under that designation has been often alluded to. *Sutton's Prizetaker*, a pale long red kidney, known to be of good table quality, took third prize. *Queen of the South*, a white smooth kidney, not unlike small forms of *Magnum Bonum*; and *Carter's Cleopatra*, a flat kidney, that very closely resembles *King of Potatos*, also won prizes. Other handsome kinds shown were *Cosmopolitan*, *Queen of the Valley*, and *Adirondack*, the two latter American kinds, reddish in colour, singularly handsome, and very productive; *Cosmopolitan* being a fine long white kidney, that will be prominent when more widely grown.

— THE family of *RETINOSPORA*, or Japan Cypress, may justly be classed amongst the prettiest of coniferous plants. *R. decussata* has leaves of a greyish-green, changing in autumn to purple or plum colour, and forms, together with most of the family, a useful plant for the decoration of the greenhouse or the conservatory during the winter. *R. obtusa* forms a fine evergreen tree of considerable dimensions, and is perfectly hardy, while *R. obtusa aurea* is a very beautiful golden plant of free growth. *R. pisifera* is an evergreen tree of rapid growth with recurved plume-like branches, and *R. pisifera aurea* retains the free-growing properties of the species, and is at the same time of a fine golden colour, the true kind being especially beautiful. *R. plumosa* is an elegant plant, with silvery-green foliage, useful as a pot plant or for winter bedding, &c. *R. plumosa argentea* and *aurea* are also very suitable plants for this purpose, and are perfectly hardy, and on account of their distinct shades of colour they may well be employed for the purpose of winter carpet-bedding, and as edgings to walks, &c.

— OF the new Californian shrub *PHILADELPHUS MICROPHYLLUS* M. Max Leichtlin, of Baden-Baden, writes that it is of pigmy growth, and well adapted for planting on rockeries of limited extent. It proves to be quite hardy in his

garden. The flowers are as large as a shilling, and deliciously scented, the scent, which is strong, being something like that of the strawberry. It has been introduced into Europe by Professor C. S. Sargent, of Harvard University.

— THE North Indian *HYPERICUM OBLONGIFOLIUM* has good claim to rank amongst the handsomest of the outdoor shrubs which flower during the autumn season. It may well be called hardy, as it will withstand an ordinary English winter in the open shrubbery, and in favourable locations, at any rate, comes freely from the ground even after such severe winters as those of 1879-80 and 1880-81. It is an evergreen with large blossoms, the concave petals of which are of considerable substance, and of a rich, almost golden-yellow colour. In the Himalayas and Northern India it is found at elevations of from 6,000 to 12,000 feet. The cultivated form was collected on the Assam hills, and sent out by the Messrs. Veitch & Sons.

— At the Royal Horticultural Society's Meeting on October 10, the chief feature consisted in the fine samples of KITCHEN APPLES which were shown in the collections of Messrs. Veitch and Messrs. Lane. One of the finest and handsomest, says the *Gardeners' Chronicle*, was *Peasgood's Nonsuch*, truly a handsome Apple, and one not easy to select from good samples of *Blenheim Orange*, except when seen on the trees; the growth, however, differs materially, and the trees crop much earlier than do those of the elder kind. *Beauty of Kent*, a smooth conical Apple, eye much depressed, skin yellowish-green, was remarkably fine, but it is an awkward grower, and wants plenty of room. The samples of *Winter Hawthornden* were very handsome; this kind does not seem to differ from what is widely grown as the New Hawthornden, although no doubt the former appellation is the more expressive; it is a first-rate keeping Apple, flattish-round in form, handsome, skin yellowish, and in some instances much tinted with red. *Frogmore Prolific* is less known, but is another grand Apple, rather early, a great cropper, and is a kind that should be found in every market orchard; the fruits are broad, rounded, slightly ribbed, and much streaked with red. *Stirling Castle* is another coming market Apple; it is an early and very reliable cropper, and on dwarf trees turns out splendid samples; the fruits are handsome, roundish, skin pale green, quality first-class. *Cobbett's Fall Pippin* is at Fulham found not to be the *Reinette Blanche*, as described in the Fruit Books, but rather a kind of *Warner's King*; indeed, taking these two, with the more recently named *D. T. Fish*, the *Fall Pippin* is found to be the best; the samples shown were large, somewhat conical, and ribbed on the top, skin pale green, and much speckled with russet. *Alfriston* is better known, and is indeed a grand late kitchen Apple; its fine, somewhat square, conical form, deep green skin, much streaked with russet, and distinctive appearance, enable it to be easily selected; it is perhaps not the most prolific kind, but it is a longer keeper than many of the other large sorts. *Lady Henniker* is another large kind, the fruit conical, squarish built, ribbed, and somewhat streaked with red. *Stone's Pippin* is a fine kind too, and has now become one of our most popular market kitchen Apples; it is a free grower, and a heavy cropper, even on free stocks, but on the dwarfing stock the fruits come of great size, broad, conical, slightly ribbed, and coloured. *Lord Derby* presents a skin as yellow as that shown on *Golden Noble*, but the fruits are

upright, not handsome, and very crumpled about the eye. *Lord Suffield* needs no descriptive mention, neither does *Warner's King*, nor *Cellini Pippin*. *Mère de Ménage* comes very fine on the dwarfing stock, and its deep red stripe on a ground of coppery-red renders the fruits specially striking. *Waltham Abbey Seedling* is a really good conical Apple, handsome, and a very reliable cropper. *Grenadier*, shown by the Messrs. Lane, is large, flattish, prominently ribbed, streaked with russet. *Lady Grosvenor* is a true Codlin-shaped fruit, but having a crumpled top. *Cor's Pomona* is not unlike the Emperor Alexander, but more ribbed. *Lord Derby* is another conical shaped fruit. Last not least, *Lane's Prince Albert*, a handsome smooth conical Apple, much striped with red. These are all kinds more or less known, but well worthy a place in any good collection of kitchen varieties.

— THE varieties of DOUBLE-FLOWERED TUBEROUS BEGONIAS have now reached a high pitch of excellence. Mr. Bealby, of Roehampton, who makes them a speciality, has sent some very grand blooms to the Garden, all of them, without exception, being remarkably fine sorts. They are described as follows:—*M. Langlois*, flowers $3\frac{1}{2}$ inches across the petals, forming a compact rosette of vivid orange scarlet; *Rosa Mundi*, 3 inches across, of a very beautiful clear rose pink; *Blanche Jeanpierre*, blush white, large and full; *Mad. Comesse*, very large, somewhat coarse, salmon pink; *Mad. Dumast*, large pale pink; *Eugene Leguin*, very fine, a full rosette of brilliant vermilion petals; *Mad. Leon Simon*, a very compact rosette of flesh pink petals; *Agnes Sorel*, delicate pink. Compared with the ordinary kinds of double begonias, these huge flowers are said to be more like pæonies.

— At Colwyn Bay, in the garden of Mr. A. O. Walker, the *TROPEOLUM SPECTIOSUM* grows freely against a wall, the flowers being unusually large. As the fruit ripens, the persistent calyx becomes of the deepest purple colour, and on this the fruits, of the richest cobalt-blue, are set. Such a combination of colours—the pale green leaves, the orange-scarlet flowers, the cobalt-blue fruits ripening into dark purple—is not only rare but gorgeous.

— RESPECTING the new Japanese PRIMULA OBCONICA *alias* POCULIFORMIS, the *Gardeners' Chronicle* remarks:—"This pretty Primrose has the habit of *P. cortusoides*, a Siberian species. The same type is represented in China by *P. Sieboldii*, a perfectly distinct species, but often considered as a variety of *P. cortusoides*. *P. mollis*, a species from the Bhotan Mountains, also shows its affinity to a considerable degree in the leaves, but the inflorescence is very different. From *P. cortusoides*, its nearest relation perhaps with which we are acquainted, *P. obconica* is at once distinguished by the obconic, wide-mouthed calyx, and shortly stalked spreading leaves, which are roundly cordate, sharply but sparsely toothed, pale green, and of much greater substance than any of the allied species above mentioned. The flowers are pinkish-white, borne well above the foliage on a many-flowered erect umbel. Under certain conditions perhaps the flowers would be white, or could be made so by sowing seed and always selecting the whitest. If it prove hardy in this country it will undoubtedly be a valuable addition to the hardy flower garden, and ought to become as popular as *P. Sieboldii*, of which we have now a great many distinct and extremely beautiful varieties. Coming as it

does from Japan it is remarkably distinct from *P. japonica*, and adds one more to the many fine plants from that country."

— THE *POPULUS ALBA BOLLEANA* is one of a class of trees to which too little attention is paid—the ornamental and picturesque class, of which there is an almost endless store in cultivation. This pyramidal Poplar from Taschkend, in Turkestan, was introduced into Germany in 1875. Its pyramidal habit and its foliage render it a most desirable tree in the landscape. The upper surface of the leaf is of a richer deeper green, and the white under-surface clearer and purer than in *P. alba*; the leaves also are more deeply lobed. For effect *P. Bolleana* is to be preferred. A representation of the foliage for samples grown in Messrs. Paul & Son's Nursery at Cheshunt, is given in the *Gardeners' Chronicle*, N. S., xviii., 557, fig. 96.

In Memoriam.

— MR. F. FAULKNER, gardener to F. B. Leyland, Esq., Woolton Hall, Liverpool, died on November 7, somewhat suddenly, in the prime of life. He was the winner of the 25 guinea Challenge Cup at the Kingston Chrysanthemum Show, last year, and was one of the three competitors who were to have finally contested the possession of it at the show of the present year.

— MR. JAMES CLARKE, one of the oldest members of the Bury and West Suffolk Horticultural Society, died at Bury St. Edmunds on November 14. From early boyhood he had an ardent love for flowers and horticultural pursuits, and he was a very successful amateur cultivator of various families of decorative plants, more especially the Pink, of which he succeeded in originating many beautiful and well-known varieties, including Lord Lyons, Derby Day, Duchess, and many others. He was a genial and kind-hearted man, who delighted in the society of horticulturists, and was greatly esteemed and respected by his fellow-townsmen.

— MR. EDWARD MEEHAN, for more than half a century gardener at St. Clare's, Ryde, Isle of Wight, died recently, at the advanced age of 84 years. Mr. Meehan was a man of a scientific turn of mind, and was much esteemed by all who knew him. He was one of the earlier improvers of the Fuchsia and other garden flowers. His son, Professor Thomas Meehan, Professor of Botany in the Academy of Natural Sciences at Philadelphia, is a well-known nurseryman of Philadelphia and Editor of the *American Gardeners' Monthly*.

— MR. THOMAS FROST, of the Bower Nursery, Maidstone, died on November 11, under painful circumstances, at the age of 59 years. He had, it appears, for some time past been ailing, but on that day accompanied his wife to London on business; while there he was seized with an apoplectic fit, and expired before he could get back to Maidstone. Mr. Frost commenced business as a nurseryman in 1863, having previously been gardener at Preston Hall, Aylesford. For many years he had been selected as one of the judges of fruit at the Royal Botanic Society's great summer shows.

